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# ESEA

## TITLE I PROJECTS

## EVALUATION REPORT
## 1967 - VOLUME II

UD 007 711

PITTSBURGH PUBLIC SCHOOLS
SIDNEY P. MARLAND, JR., SUPERINTENDENT

ED026431

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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# ESEA TITLE I PROJECTS

# EVALUATION REPORT

## 1967 - VOLUME II

UD 007 711

Pittsburgh Public Schools

Sidney P. Marland, Jr., Superintendent

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# QUALIFYING SCHOOLS

The following schools were eligible for Title I funds under the 1966-1967 guidelines:

## Elementary

Arlington
Arsenal
Baxter
Belmar
Beltzhoover
Burgwin
Chartiers
Clayton
Columbus
Conroy
Cowley
Crescent
Dilworth
East Park
East Street
Fairywood
Fineview
Forbes
Fort Pitt
Frick
Friendship
Gladstone
Grandview
Greenfield
Hays
Holmes
Homewood
Knoxville
Larimer
Lemington
Letsche
Lincoln
McCleary
McKelvy
McNaugher
Madison
Manchester
Mann
Miller
Morse
Murray
Northview
Phillips
Prospect
Rogers
Schiller
Sheraden
Spring Garden
Stevens
Vann
Weil
Woolslair

## Secondary

Allegheny
Arsenal Vocational
Carrick
Connelley Vocational
Conroy Junior
Fifth Avenue
Gladstone
Greenfield Junior
Herron Hill Junior
Knoxville Junior
Langley
Latimer Junior
Oliver
Peabody
Perry
Prospect Junior
Schenley
South
Washington Vocational
Westinghouse

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## Introduction

Since the early months of 1966, under the auspices of Title I of the Elementary and Secondary Education Act, Pittsburgh Public Schools have been using federal funds to develop a variety of programs addressed to the needs of socially and economically disadvantaged students and the schools these students attend. More specifically, the funds have been used for the following purposes: to introduce changes in school organization; to augment the human and material resources of the school; to provide new or improved services; to devise or strengthen instructional strategies and other educational processes; to increase the variety of educational activities; and to evaluate and adjust the planning, implementation, and effects of these changes. The benefits of the total effort are seen in the gradual rationalization of processes and programs toward the goal of quality education in the affected schools.

An integral part of the overall change is the evaluation activity which has guided and supported it. The objectives and criteria of evaluation are defined by the Pittsburgh Evaluation Model. Under this model, educational processes are viewed as emerging cybernetic entities. Continuous feedback to program managers of evaluative information, coupled with ever more effective responses on their part, contributes to the constant improvement of plans and operations in the schools affected by Title I.

This publication, the second annual evaluation report, presents information about Title I activities conducted during the 1966-1967 school year. The emphasis of the overall effort on the development of processes is evidenced in the nature of the reporting. Thus, much of the information presented to managers in this early phase of evaluation is related to program conceptualization and program operation. As time progresses, proportionately more information about program effects will be gathered and disseminated.

The reports are presented in two volumes. They have been kept as concise as possible, and, to avoid repetition, the procedures and methods defined by the evaluation model have not been explained or described within the individual reports. For information about these, the reader is referred to the first section of Volume I which contains an explanation of the Pittsburgh Evaluation Model.

The 17 reports in Volume I reflect the objectives and procedures established by the evaluation model. Volume II is composed of those 10 evaluation reports which were not held to the model, although they may have conformed to it in part, if not completely. The unusual content and format of the Volume I reports merit some additional explanation. Parts of these reports, such as program definitions and Stage I panel findings, have been issued at intermediate stages of the year's evaluation as separate documents. To conserve editing time and resources, these sections were incorporated into the reports without the modification necessary to make them consistent with the conventional format.

Any effort of this type depends on the contributions of many individuals and groups. We wish to thank the personnel in the schools who have given their time to fill out questionnaires and answer interviews and have cheerfully suffered the interruption of their classes for observations. The cooperation and understanding of project managers has also been an essential condition of this work. These managers, who must ultimately bear the responsibility for the success or failure of their programs, have been forced to take risks with us which were not always within their understanding or, in their opinions, prudential. To them, also, we extend our thanks.

Malcolm Provus
Director of Research

# 1. ADAPTED PHYSICAL EDUCATION PROGRAM

## 1. ADAPTED PHYSICAL EDUCATION PROGRAM

### Introduction

### History of the Program

In compliance with a directive of the Superintendent of Public Instruction of the Commonwealth of Pennsylvania, the Pittsburgh Public Schools began a pilot program in adapted physical education at Westinghouse High School in September of 1965. This project was to be expanded under ESEA support on March 31, 1966 to include 20 qualifying schools employing 10 trained teachers. However, only five teachers were found to fill these positions. They received six weeks of specialized training in adapted physical education at the University of Pittsburgh. On completion of the course they were assigned to five schools in which they were to implement the program.

The 1966 evaluation was conducted after the program had been in operation for only three months. The report issued by the Office of Research highlighted the lack of cooperation among the county, private, and school physicians--a condition which greatly restricted the remedial component of the program. Consequently the 1965-1966 program consisted mainly of modified, rather than remedial, physical education. The report also suggested the development of clear and uniform criteria for admission into the program and a systematic method of recording the reason for induction, beginning capabilities, progress, and transfer of students to the regular physical education program.

During July and August of 1966, seven additional teachers and a supervisor, newly hired for the program, were given specialized training at the University of Pittsburgh's summer workshop. This training prepared them to formulate and conduct an adapted curriculum. In September these teachers and three members of the original staff were placed in schools, thus allowing a considerable expansion of the program over the previous year.

## Description of the Program

A meeting to formulate a program definition for the Adapted Physical Education Program was held on March 21, 1967. At this meeting, the program supervisor, all adapted physical education teachers, and a principal from a school in which the program was operating addressed themselves to a series of questions drawn up by the Office of Research to elicit specific information about the program (see Appendix A). The program definition which resulted from this meeting is presented in the following pages.

# Adapted Physical Education Program Definition

## GENERAL

### I. Overall Statement of Objectives and Rationale for the Program

The Adapted Physical Education Program is designed to provide pupils who cannot participate in or benefit from a regular physical education program with an opportunity to exercise within their own limitations. The activities of the program are either modified or remedial.

### II. Description of Scope

#### A. Number of Schools Involved

The program is implemented in 13 of the Pittsburgh Public Schools. Five of these are junior high schools, seven are elementary schools, and two are vocational schools.

#### B. Grades or Ages of Participants

Participants represent grades one through twelve, with a number of special education students.

#### C. Total Number of Pupils Involved

The number of participants totals 1,054.

#### D. General Description of Staff

The staff consists of the Associate Director for Instruction, Physical and Health Education; the Supervisor; and 11 Adapted Physical Education teachers.

## OUTCOMES

I. Major Objectives--changes expected to occur in program participants as a result of the program. There are two types of major objectives.

A. Terminal Objectives--behaviors exhibited by participants at the end of the program which demonstrate successful completion of the program. To terminate his participation in the Adapted Physical Education Program, the student should demonstrate a level of performance that will permit him to rejoin regular physical education classes.

There are separate terminal objectives for each of the two parts of the program:

1. As a result of the Remedial Program, the student should demonstrate an improved physical condition.

2. As a result of the Modified Program, the student should be able to perform limited exercises.

B. Ultimate Objectives--the long-range goals of the program. These are objectives to which the program hopefully contributes, but for which it does not have sole responsibility.

As a result of the Adapted Physical Education Program, the student should demonstrate improved morale.

II. Enabling Objectives--the skills, attitudes, and information which students must acquire during the program to ensure the accomplishment of the major objectives

No enabling objectives were specified for the Adapted Physical Education Program.

III. Other Benefits--benefits expected to accrue to other than program participants as a result of the program

No benefits of this type were specified for the Adapted Physical Education Program.

IV. Criteria for Successful Completion of or Removal from the Program

No such criteria were specified for the Adapted Physical Education Program.

## ANTECEDENTS

I. Participants

A. Selection Characteristics--the criteria that are used to determine who shall participate in the program

Students who are unable to fully participate in the regular physical education program because of a temporary or permanent disability are selected for the Adapted Physical Education Program.

Selection is mainly carried out by the regular and adapted physical education teachers, school or private physicians, and the school nurses. Guidance counselors, classroom teachers, and principals may also participate in the selection process.

B. Entering Behaviors--characteristics of participants (other than selection characteristics) which are related to performance in the program

The physically disabled participants of the Adapted Physical Education Program may also exhibit emotional disability. The success or failure of the participant to benefit from the program depends on his willingness to overcome his limitation and his cooperation in program activities.

II. Staff--qualifications with respect to specific positions

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Associate Director of Instruction, Physical and Health Education | A Master's degree in adapted physical education | No specific personal qualifications were indicated for program staff. |

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Supervisor | A Master's degree in adapted physical education | |
| Adapted Physical Education Teacher | 1. A Bachelor's degree in physical education<br>2. Special training in adapted physical education | |

III. Support

A. Administrative Support--administrative personnel who cooperate in carrying out the program

In the implementation of the Adapted Physical Education Program, the school principal provides space for a special gym and arranges pupils' schedules.

B. Human Resources--non-administrative and non-staff personnel whose contributions and cooperation are necessary to the operation of the program

The cooperation of the following persons is required for the success of the Adapted Physical Education Program:

1. Private and school physicians

2. School nurses

3. Guidance counselors

4. Classroom teachers

5. Parents

C. Media--the materials, supplies, and equipment required for program activities

Equipment used to carry out the activities in the Adapted Physical Education Program includes the following items:

1. Weights

2. Pulleys

3. Stallbars

4. Exercycles

5. Mats

6. Postural mirrors

D. Facilities

No facilities were identified for the Adapted Physical Education Program.

IV. Time Constraints

The following time constraints exist in the Adapted Physical Education Program:

A. The length of time spent in the program varies with the individual.

B. Classes meet two or three times a week.

## PROCESS

I. Participant Activities--the day-to-day program activities that will ultimately lead to the achievement of objectives

The activities of the Adapted Physical Education Program depend to a large extent on the nature of the physical disabilities of the participants. The following is a general description of these activities:

A. Class time is generally divided into two types of activity:

1. General exercises done by the entire group

2. Specific exercises administered and supervised on an individual basis by the instructor

B. Specific exercises are performed at home by the participants.

II. Staff Functions and Activities

A. Staff Functions and Duties with Respect to Specific Positions

| Staff Members | Functions | Duties |
|---|---|---|
| Associate Director of Instruction, Physical and Health Education | Is responsible for entire program | Plans the program with the program supervisor |
| Program Supervisor | 1. Organizes program<br>2. Supervises the activities and progress of teachers | a. Provides teachers with necessary materials and equipment<br>b. Participates in workshops<br>c. Makes frequent visits to participating schools |
| Adapted Physical Education Teacher | | a. Helps select participants for the program<br>b. Specifies and administers exercises and games to participants<br>c. Keeps records on each participant including information on the nature of the limitation and the nature and duration of treatment |

| Staff Members | Functions | Duties |
|---|---|---|
| Adapted Physical Education Teacher (contd.) | | d. Evaluates progress of participants and determines readiness for change to regular program<br>e. Informs parents of needs of child and exercises to be done at home under their supervision |

B. Intra-staff Communication and Coordination

No information was specified on intra-staff communication and coordination.

C. Communication Between Program Staff and Others

No information was specified on communication between program staff and others.

## Statement of the Problem

As the program is still in its early stages, this year's evaluation was mainly descriptive. An attempt was made to describe the entering behaviors and characteristics of participants and to determine how many of them were returned to the regular physical education program. Attention was also given to certain operational aspects of the program, such as improving the recording system.

## Method

The evaluator initiated evaluation with three discussion meetings held in late November and early December of 1966 with the Associate Director of Instruction, Physical and Health Education and with the program supervisor. The purpose of these meetings was to familiarize the evaluator with the program. These meetings were followed by a field visit to six schools in January to observe the implementation of the program and to interview a number of teachers.

Also in January, the evaluator attended a workshop on adapted physical education at Frick School and distributed data collection sheets to the teachers present. The data were returned to the Office of Research by the end of February.

The evaluator, who was also a consultant to the program, worked informally with the program staff on the development of forms for recording and evaluating student progress.

## Results

Table 1 presents the number of participants from each school, as well as the percentage of the school's total enrollment participating in the Adapted Physical Education Program.

TABLE 1

Number of Participants from Each School and Percentage of School's Total Enrollment Participating in Program

| School | Total Enrollment | Program Enrollment | Percentage of Total Enrollment Participating in Program |
|---|---|---|---|
| Arsenal Vocational | 269 | 86 | 31.97 |
| Conroy Elementary | 426 | 77 | 18.17 |
| Overbrook Elementary | 727 | 92 | 12.65 |
| Manchester Elementary | 858 | 105 | 12.23 |
| Frick Elementary | 852 | 102 | 11.97 |
| Connelley Vocational | 477 | 56 | 11.74 |
| McNaugher Elementary | 929 | 87 | 9.36 |
| Philip Murray Elementary | 670 | 61 | 9.10 |
| Holmes Elementary | 475 | 41 | 8.63 |
| Northview Heights Elementary | 1,087 | 83 | 7.63 |
| Oliver High School | 1,414 | 90 | 6.36 |
| Westinghouse | 2,957 | 157 | 5.30 |
| Columbus Elementary | 686 | 20 | 2.91 |

As Table 1 indicates, the size of the program varied in different schools from 31.97 percent of total enrollment to 2.91 percent of the total enrollment. The greatest numbers of program participants came from Westinghouse, Manchester, and Frick Schools. The schools with the greatest percentage of their total enrollment participating in the Adapted

Physical Education Program were Arsenal, Conroy, Overbrook, and Manchester.

This year the number of participants in the Adapted Physical Education Program was almost four times the number in the 1965-1966 program, while the number of teachers only doubled. The participants represented all 12 grades as well as special education classes, as is shown in Table 2.

TABLE 2

Participants in Adapted Physical Education Program
Distributed by Grade

| Grade | Number of Students | Percentage |
|---|---|---|
| 1 | 35 | 3.31 |
| 2 | 39 | 3.68 |
| 3 | 42 | 3.97 |
| 4 | 126 | 11.92 |
| 5 | 109 | 10.31 |
| 6 | 92 | 8.70 |
| 7 | 143 | 13.52 |
| 8 | 108 | 10.21 |
| 9 | 70 | 6.62 |
| 10 | 86 | 8.13 |
| 11 | 80 | 7.56 |
| 12 | 76 | 7.19 |
| Special Education | 51 | 4.82 |
| Total | 1,057 | 99.94 |

As the table indicates, the greatest percentages of students were in grades 7, 4, 5, and 8; the smallest percentage were first-graders.

Table 3 shows the distribution of participants in each school according to sex and race.

TABLE 3

Participants in Adapted Physical Education Program at Each School Classified by Sex and Race

| School | Program Enrollment | Number Male | Number Female | Number White | Number Non-white |
|---|---|---|---|---|---|
| Arsenal Vocational | 86 | 86 | 0 | 85 | 1 |
| Columbus Elementary | 20 | 20 | 0 | 9 | 11 |
| Connelley Vocational | 56 | 56 | 0 | 54 | 2 |
| Conroy Elementary | 77 | 77 | 0 | 13 | 64 |
| Frick Elementary | 102 | 47 | 55 | 23 | 79 |
| Holmes Elementary | 41 | 0 | 41 | 22 | 19 |
| McNaugher Elementary | 87 | 87 | 0 | 80 | 7 |
| Manchester Elementary | 105 | 105 | 0 | 4 | 101 |
| Philip Murray Elementary | 61 | 61 | 0 | 27 | 34 |
| Northview Heights Elementary | 83 | 83 | 0 | 60 | 23 |
| Oliver High School | 90 | 90 | 0 | 74 | 16 |
| Overbrook Elementary | 92 | 92 | 0 | 90 | 2 |
| Westinghouse | 157 | 83 | 74 | 3 | 154 |
| Total | 1,057 | 887 | 170 | 544 | 513 |
| Percentage of Total Group |  | 83.91 | 16.09 | 51.46 | 48.54 |

As Table 3 indicates, 84 percent of the participants were male, while only 16 percent were female. The small percentage of girls in the program was due to the reluctance of male teachers to instruct girls when no female aides were present. The three schools with girls participating in the program had two female teachers. Table 3 also reveals that 51 percent of the students in the program were white; 49 percent, non-white.

Table 4 presents the percentage of Negroes in the program compared to the percentage of Negroes in each school.

TABLE 4

Percentage of Negroes in Program Compared to Percentage of Negroes in School

| School | Percentage of Negroes in the School | Percentage of Negroes in the Program |
|---|---|---|
| Arsenal Vocational | 57.7 | 0.2 |
| Columbus Elementary | 87.1 | 55.0 |
| Connelley Vocational | 10.0 | 72.5 |
| Conroy Elementary | 76.2 | 83.2 |
| Frick Elementary | 65.5 | 77.5 |
| Holmes Elementary | 54.0 | 46.4 |
| McNaugher Elementary | 17.7 | 8.1 |
| Manchester Elementary | 88.5 | 96.2 |
| Philip Murray Elementary | 62.4 | 55.8 |
| Northview Heights Elementary | 36.6 | 27.8 |
| Oliver High School | 42.0 | 17.8 |
| Overbrook Elementary | 1.6 | 2.2 |
| Westinghouse | 99.2 | 98.1 |

Table 4 shows that in five of the 13 schools the percentage of Negro participants was greater than the percentage of Negroes in the entire school.

In Table 5 the number of students in the school and in the program are compared according to the type of class attended (regular or special education).

## TABLE 5

### Total School Enrollment Compared to Program Enrollment by Type of Class Attended (Regular or Special Education)

| School | Total School Enrollment | | Program Enrollment | |
|---|---|---|---|---|
| | Regular Classes | Special Education | Regular Class | Special Education |
| Arsenal Vocational | 269 | 0 | 86 | 0 |
| Columbus Elementary | 656 | 30 | 20 | 0 |
| Connelley Vocational | 477 | 0 | 50 | 6 |
| Conroy Elementary | 389 | 37 | 68 | 9 |
| Frick Elementary | 835 | 17 | 98 | 4 |
| Holmes Elementary | 450 | 25 | 40 | 1 |
| McNaugher Elementary | 911 | 18 | 84 | 3 |
| Manchester Elementary | 818 | 40 | 84 | 21 |
| Philip Murray Elementary | 637 | 33 | 51 | 10 |
| Oliver High School | 1,355 | 59 | 90 | 0 |
| Overbrook Elementary | 696 | 31 | 73 | 19 |
| Northview Heights Elementary | 1,055 | 32 | 79 | 4 |
| Westinghouse | 2,777 | 180 | 145 | 12 |
| Total | 11,325 | 502 | 968 | 89 |
| Percentage of Total Group | | | 8.54 | 17.72 |

Table 5 shows that only 9 percent of the students enrolled in regular classes participated in the program compared to 18 percent of the special education pupils. Most of these students were in the modified program which deals principally with chronic handicapping conditions.

Table 6 classifies the participants in the Adapted Physical Education Program at each school according to the aspect of the program in which they participated.

## TABLE 6

### Distribution of Participants at Each School by Aspect of Program

| School | Total Program Enrollment | Remedial Class | Modified Class |
|---|---|---|---|
| Arsenal Vocational | 86 | 79 | 7 |
| Columbus Elementary | 20 | 20 | 0 |
| Connelley Vocational | 56 | 56 | 0 |
| Conroy Elementary | 77 | 77 | 0 |
| Frick Elementary | 102 | 100 | 2 |
| Holmes Elementary | 41 | 40 | 1 |
| McNaugher Elementary | 87 | 16 | 71 |
| Manchester Elementary | 105 | 105 | 0 |
| Northview Heights Elementary | 83 | 12 | 71 |
| Oliver High School | 90 | 85 | 5 |
| Overbrook Elementary | 92 | 89 | 3 |
| Philip Murray Elementary | 61 | 60 | 1 |
| Westinghouse | 157 | 45 | 112 |
| Total | 1,057 | 784 | 273 |
| Percentage | 100% | 74.17% | 25.82% |

The table shows that the remedial classes were attended by 74 percent of the participants while 26 percent were enrolled in the modified classes.* This distribution represents an almost complete reversal from last year's program, which was largely modified. The reversal is mainly due to the added experience of program teachers, the nature of the facilities and equipment available this year, and the greater cooperation among the program staff, school physicians, and nurses.

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* In only three schools (Westinghouse, McNaugher, and Northview) were more students enrolled in the modified classes than in the remedial classes, reflecting the special interests of the teachers in these schools.

Table 7 presents the distribution of participants according to their limiting conditions.

### TABLE 7

Distribution of Participants According to Their Limiting Conditions

| Limiting Condition | Number of Cases | Percentage |
|---|---|---|
| Postural defects | 593 | 37.96 |
| Low physical fitness | 376 | 24.07 |
| Overweight | 298 | 19.07 |
| Underweight | 96 | 6.14 |
| Social maladjustment | 69 | 4.41 |
| Chronic diseases and physical defects | 66 | 4.22 |
| Poor coordination and skills | 42 | 2.68 |
| Postoperative cases | 22 | 1.40 |
| Total | 1,562 | 99.95 |

As Table 7 reveals, the most common limiting conditions of the participants were postural defects (38 percent), low physical fitness (24 percent), and overweight (19 percent). Postoperative cases and chronic diseases and physical defects, which account for most of the referrals to the modified classes, were the limiting conditions of only 6 percent of all participants.

In reviewing teachers' records in June, it was found that 24 percent of the original participants in the program had improved sufficiently to be returned to regular physical education classes. Two percent of the students who did not improve were also returned, due to the fact that their structural deviations could not be corrected through exercise or due to their poor attendance in class. Of the 74 percent of participants who remained in the program, 34 percent showed good improvement and 23 percent improved slightly. The 5 percent with chronic diseases improved markedly in their attitudes, morale, and fitness as judged by their teachers. Only 12 percent of the participants remaining in the program showed no progress.

There is evidence of increased cooperation among the program staff, school physicians, and nurses. The reversal of the program from modified to remedial is evidence of this greater cooperation.

An additional result of this year's evaluation was the development of forms for the recording and evaluating of students' progress. These forms, developed by the program staff and the program consultant, will be in use next year (see Appendix B).

## Discussion and Conclusions

It appears that some progress was made in the 1966-1967 Adapted Physical Education Program, not only by participants, but also by the program staff, school physicians, and school nurses.

Nevertheless, a number of problems still need to be resolved. The most immediate of these is the great number of teachers who leave (six out of 10 left last year) because of the temporary nature of their jobs, a result of ESEA funding. This involves not only the current loss of manpower and money, but also the future implementation of the program.

Another problem is the need for an orthopedic consultant to whom students can be referred by school physicians for further evaluation and recommendations regarding necessary restrictions. At present, the program is restricted to handling simple cases of postural defects, overweight, and underweight. The employment of an orthopedic consultant has already been recommended by the Allegheny County Health Department and the School Health Committee of the Allegheny County Medical Society.

A third problem in the current program is the need for more female aides for teachers. Male teachers are reluctant to instruct girls in the program if these aides are not present. This is evident by the fact that girls form only 16 percent of the total program participants.

# APPENDICES

## Appendix A

## GROUP INTERVIEW SCHEDULE
## ADAPTED PHYSICAL EDUCATION PROGRAM

1. What is the purpose of the Adapted Physical Education Program? How does a student benefit from the program? What should students be able to do as a result of participation in the program?

2. How are students enrolled in the program? Who selects them, and what are the selection criteria?

3. What are the major physical, scholastic, and emotional characteristics of the students who participate in the Adapted Physical Education Program?

4. What kind of activities are specified for students who participate in the Adapted Physical Education Program? Who determines these activities? How will these activities contribute to the objectives of the program? Are some activities more important than others? Why?

5. What type of student needs modified activity? What type needs remedial activity? What type of student needs both?

6. How long should students be enrolled in the Adapted Physical Education Program? What are the criteria for returning students to the regular program?

7. What kinds of personnel are needed to implement the Adapted Physical Education Program? What functions and specific tasks does each perform and how do these serve the program objectives? What personal and professional qualifications are called for?

8. What specific materials, supplies, and equipment are necessary to carry out the Adapted Physical Education Program?

9. How do you keep each other informed about the purposes, methods, needs, and problems of the Adapted Physical Education Program?

## Appendix B

## PUPIL RECORD
## ADAPTED PHYSICAL EDUCATION PROGRAM

**PITTSBURGH**
**PUBLIC**
**SCHOOLS**

**NAME**__________ **SEX M-F**______ **RACE W-C**______ **CASE OR PICTURE NUMBER**______

**ADDRESS**__________ **PHONE NUMBER**______

**GRADE**______ **HOME ROOM**______ **PERIOD**______ **TEACHER**______

**DATE OF BIRTH**______ **HEIGHT**______ **WEIGHT**______ **DATE OF ENTRY**______

**REASON FOR ADMISSION OR PHYSICIAN RECOMMENDATION:**______

__________ **DATE PROMOTED**______

**TEST FINDINGS:**______

| DATE | RETEST | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | | | | |
| | 2 | | | | | | | | |
| | 3 | | | | | | | | |
| | 4 | | | | | | | | |
| | 5 | | | | | | | | |
| | 6 | | | | | | | | |

**COMMENTS:**______

**SOCIAL ADJUSTMENT**______

**POSTURAL APPRAISAL**______

**HEALTH HABITS**______

**FITNESS RESULTS**______

# 2. DRIVER EDUCATION PROGRAM

## 2. DRIVER EDUCATION PROGRAM

### Introduction

While there is still much doubt as to the beneficial effects of driver training, automobile insurance companies continue to provide discounts to those families whose children have completed a public school driver education course. The companies seem convinced that public school driver education programs have real merit and, therefore, strongly support them.

The Pittsburgh summer Driver Education Program was initiated in 1966. Based on the experience gained at that time, the program was repeated from June 24, 1967 to August 10, 1967 at two centers: Oliver High School on the North Side and Peabody High School in the East End. Seven hundred ten students enrolled for the course. Of these, 468 (66 percent) were from 16 Pittsburgh Public Schools and 242 (34 percent) were from private and parochial schools.

The program was the standard driver education program of 30 hours of classroom instruction and six hours of behind-the-wheel instruction conducted by one part-time and 26 full-time instructors certified in driver training by the Pennsylvania Department of Public Instruction. In addition, lectures were given by representatives of the State Police, the City Police, and automobile insurance companies.

Provision in the program for a licensing examination by the

State Police was discussed early in the year. While the Police were willing to cooperate as much as possible, testing between 120 and 140 additional applicants per day for one week in the busiest part of the year involved serious operational problems. In addition, it was felt that individuals waiting in line for their examinations would react unfavorably to the appearance of a training car every 15 minutes with five applicants for immediate examination. These reasons, as well as the feeling that students must learn to assume some responsibility, led to dropping the idea of the licensing examination as part of the program.

## Statement of the Problem

The problem for evaluation was twofold: (1) to determine students' reasons for taking the course, and (2) to determine the success of the program.

## Method

In order to obtain information on the first aspect of the problem, students were asked at the beginning of the course to give their reasons for enrolling.

In determining the success of the program, it was felt that there were at least three criteria that should be considered: (1) the number of students satisfactorily completing the course, (2) the number of students who passed examinations for drivers' licenses, and (3) the students' own evaluation of the course. Information on the first two criteria was obtained from class records and records kept by the State Police. For the third criterion, students were asked to write a paragraph giving their reactions to the program after the completion of the course.

## Results

Six hundred seventy-nine of the enrollees gave their reasons for taking the course. The frequency and percentage of responses with comparable entries for 1966 are given in Table 1.

TABLE 1

Enrollees' Reasons for Taking Course

| Reason | 1967 | | 1966 | |
|---|---|---|---|---|
| | Frequency | Percent | Frequency | Percent |
| Learn to drive | | | 560 | 52.1 |
| Learn to drive better | 537 | 52.9 | | |
| Lower insurance rates | 284 | 27.9 | 190 | 17.7 |
| Obtain adult license at 17 | 75 | 7.4 | 45 | 4.2 |
| Better instructors | 90 | 8.9 | 132 | 12.3 |
| Understand laws, mechanical performance | 15 | 1.5 | 36 | 3.3 |
| No cost for course | 18 | 1.8 | 26 | 2.4 |
| Total | 1019 | 100.4 | 989 | 92.0* |

* Percentages do not total 100 because some students responded in other categories in the 1966 evaluation.

As might be expected, the major reason for taking the course in 1967 was the same as in 1966--the desire to learn how to drive, with overtones of becoming a better driver.

In regard to the first criterion for judging the success of the program, 96.5 percent of the enrollees satisfactorily completed the course. As to the second criterion, by the last date of the program, August 19, 1967, almost 30 percent of the participants had received their drivers' licenses. Evaluations of the program were received from 561 students. Of this number, 66.1 percent felt that the instruction was excellent, while only 2.3 percent believed that it might have been improved. In addition, more than 31 percent of the students stated that correct driving habits and knowledge of regulations were best learned in a driver education course.

## Planned Future Evaluation Activities

Arrangements have been made with the Pennsylvania Department of Revenue, Bureau of Traffic Safety, to check the driving records of those who have completed the Driver Education Program in the Pittsburgh Public Schools. Records will be provided for an equal number of license holders who have not received this training but who are in the same age group and have attended the same school. A comparison to determine the effects of the program may then be possible.

# 3. EMPLOYMENT SUPERVISORS PROGRAM

# 3. EMPLOYMENT SUPERVISORS PROGRAM

## Introduction

### History of the Program

In August 1962, the Pittsburgh Board of Public Education established a Vocational Placement Office in the Division of Pupil Services. This office was housed in Fifth Avenue High School until September 1965 when it was moved to the Administration Building. Its function was to provide adjustive counseling and job placement for young people of limited abilities. The staff at that time consisted of one secondary guidance counselor who acted as a supervisor for the city-wide program.

A new phase of the program began in 1966 under the provisions of ESEA. A full-time placement counselor was added to the staff. Her duties consisted largely of telephone contacts with industry to locate jobs for graduates, dropouts, and part-time students who sought help from the office. It is hoped to further expand the program by hiring a male coordinator to visit industries and maintain contact with personnel men in the field.

With the advent of ESEA, the program also took over the task of screening candidates for the Negro Educational Emergency Drive (NEED). During the spring of 1966, 111 students received $38, 622 in scholarship aid under the NEED program. In the spring of 1967, this figure increased to $50, 039, which was distributed among 206 students.

In the 1966 evaluation report, a recommendation was made that the program's services be extended to parochial students. This recommendation was put into effect in the 1966-1967 school year. (See the statistics under Scope of the Program for numbers of parochial students served by the program.)

Currently, in its adjustive counseling role, the Employment Supervisors Program attempts to prevent students from dropping out of school. This is often done by arranging special schedules through remedial or shop classes. Graduating students and graduates are advised of the special skills required by industry and where special courses to obtain these skills can be found. The program's rapport with industries in Pittsburgh is excellent, and they are increasingly contacting the program for applicants.

## Description of the Program

On February 6, 1967, a definition meeting for the Employment Supervisors Program was held in the Administration Building. This meeting was attended by the Director of Pupil Services, the Associate Director of Employment Supervisors, the placement counselor in the program, the program evaluator, and two other members of the Office of Research. The questions used to elicit information about the program are included in Appendix A. More information was obtained from two memos, dated March 16 and September 6, written by the Associate

Director of Employment Supervisors. From these sources, a definition was compiled by the Office of Research. This definition follows to provide a full description of the program.

## Employment Supervisors Program Definition

### GENERAL

### I. Overall Statement of Objectives and Rationale for the Program

Through the resources of the Employment Supervisors Program, particularly the extensive file of local job contacts, students who need part-time employment, graduates who are unable to find employment through the usual channels, dropouts, and community agency referrals are helped both through job placements and through adjustive counseling.

### II. Scope

#### A. Numbers of Pupils and Schools Involved

From September 3, 1966 to August 31, 1967, through the joint efforts of secondary counselors and the Employment Supervisors Program, the following numbers of students were placed:

| | Graduates | Dropouts | Part-time |
|---|---|---|---|
| Pittsburgh Public High Schools | 2,645 | 820 | 3,891 |
| Pittsburgh Parochial High Schools | 267 | 38 | 1,637 |
| Totals | 2,912 | 858 | 5,528 |

#### B. Grades or Ages of Participants

A large majority of students served by the program are 16 years of age or older which is necessary for full-time employment. However, 14- and 15-year old students are also assisted in finding part-time employement.

#### C. General Description of Staff

The program staff consists of the Associate Director of Employment Supervisors and a placement counselor.

## OUTCOMES

I. Major Objectives--changes expected to occur in program participants as a result of the program. There are two types of major objectives.

   A. Terminal Objectives--behaviors exhibited by participants at the end of the program which demonstrate successful completion of the program

      As a result of participation in the Employment Supervisors Program, the student will do the following:

      1. Obtain a job commensurate with his ability
      2. Participate in activities that will provide him with greater job opportunities
      3. Work toward eliminating problems which interfere with his ability to get or keep jobs

      An objective of the program not related to student change is the identification of students eligible for the Negro Educational Emergency Drive (NEED) scholarships.

   B. Ultimate Objectives--the long-range goals of the program. These are objectives to which the program hopefully contributes, but for which it does not have sole responsibility.

      It is hoped that as a result of the Employment Supervisors Program the following will occur:

      1. Some students who have left school will decide to return.
      2. Some students who contemplate leaving will decide to remain.
      3. Students will show more adaptive behavior in school and on the job as a result of improved self-image gained through employment.

II. Enabling Objectives--the skills, attitudes, and information which students must acquire during the program to insure the accomplishment of the major objectives

To accomplish the terminal objectives of the Employment Supervisors Program, students must become aware of the importance of long-range planning with respect to their education, their jobs, and their future.

III. Other Benefits--benefits expected to accrue to other than program participants as a result of the program

The Employment Supervisors Program should provide the following benefits:

1. Maintenance of a clearing house or bridge between prospective employers and potential employees
2. Coordination of information on job placement among counselors in 16 senior high schools
3. An accumulation of information on dropouts and those "difficult to employ" which may be used to effect curriculum change
4. Development of a fund of information on the labor market

IV. Criteria for Successful Completion of or Removal from the Program

Successful completion of the program is achieved by a student when he is holding a job commensurate with his abilities and aspirations.

However, if the student decides he wants to continue his education or to secure a job on the basis of new skills, the program is ready to assist him in his new endeavors.

## ANTECEDENTS

I. Participants

A. Selection Characteristics--the criteria that are used to determine who shall participate in the program

Students chosen for participation in the Employment Supervisors Program may fall into any one of the following categories:

1. Dropouts
2. Students needing part-time employment

3. Graduates of high school who are unable to get employment through the usual channels

Students are selected through a routine check of all graduates or referred by a high school counselor, a community agency, parents, teachers, school social workers, secondary school administrators, Juvenile Court personnel, and child accounting supervisors (see Appendix B).

B. Entering Behaviors--characteristics of participants (other than selection characteristics) which are related to performance in the program

Students selected to receive the services of the Employment Supervisors Program often exhibit adjustment and economic problems.

II. Staff--qualifications with respect to specific positions

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Associate Director | Training, certification, and experience in guidance and counseling | The ability to promote good public relations<br>The ability to establish personal contacts with potential employers |
| Placement Counselor | Training, certification, and experience in guidance and counseling | Knowledge about the existence and use of community resources<br>The ability to win confidence and act with understanding |

III. Support

A. Administrative Support--administrative personnel who cooperate in carrying out the program

The Director of Pupil Services furnishes the needed administrative support for the Employment Supervisors Program.

B. Human Resources--non-administrative and non-staff personnel whose contributions and cooperation are necessary to the operation of the program

The following persons and groups contribute to the Employment Supervisors Program in various ways:

1. Counselors in 16 senior high schools who receive and share information on employment with the program staff
2. School social workers
3. Juvenile Court authorities who help identify students for the program
4. The Pennsylvania State Employment Bureau
5. The Urban League

C. Media--the materials, supplies, and equipment required for program activities

The most important resource for the Employment Supervisors Program is the file of potential employers used in securing employment for the students who avail themselves of the program's services.

D. Facilities

Office space for private interviewing is necessary for the proper operation of the program.

IV. Time Constraints

Students who enter this program are given the amount of individual attention necessary to bring about some solution to their problems. The program operates on a twelve month basis.

## PROCESS

I. Participant Activities--the day-to-day program activities which ultimately lead to the achievement of objectives

After being referred to the Employment Supervisors Program, students participate in the following activities:

1. Students are interviewed by the program counselor or the associate director.[1]

2. Students may then be assisted in one of the following ways:

    a. Helped with placement on a job
    b. Counseled[2]
    c. Helped to work out future educational plans[3]
    d. Referred to appropriate social service agencies depending on the type of problems they bring with them
    e. Referred back to the school counselor for further educational planning or schedule adjustments

3. Students are contacted in follow up to see if further problems have arisen.

---

[1] In some cases when the program is only being utilized by high school counselors for information on openings, this step is not included. If, however, the student is referred by parents, child accounting supervisors, or home and school visitors, Central Office school personnel, secondary school counselors, secondary school administrators, Juvenile Court probation officers, or community agencies, then the interview with the student is the initial step toward achieving the program's objectives.

[2] The program augments the efforts of the counselor to keep the student in school, even to the extent of tailoring schedules to permit part-time schooling and part-time employment. The program encourages dropouts to continue their education in the evening school and works cooperatively with the Pennsylvania State Employment Service in registering dropouts for Federal Manpower Training for Job Corps and for enlistment in the City Neighborhood Youth Corps.

[3] Students who are graduating are encouraged to continue their training, either on the college level with scholarship assistance or in post-high school offerings in vocational and technical schools.

## II. Staff Functions and Activities

### A. Staff Functions and Duties with Respect to Specific Positions

| Staff Member | Functions | Duties |
|---|---|---|
| Associate Director | 1. Coordinates and administers the program independently and in conjuction with the high school counselors | Participates in monthly meetings with counselors |
| | 2. Makes and maintains contacts with potential employers | Prepares employment bulletins for distribution to high schools |
| | 3. Identifies minority group students for special opportunities | Screens candidates for NEED scholarships |
| Placement Counselor | Identifies the needs of graduates, dropouts, and poorly adjusted students | a. Interviews<br>b. Telephones candidates and employers<br>c. Contacts graduates |

### B. Intra-staff Communication and Coordination--activities of the entire staff directed toward keeping staff members informed with respect to program information

The two members of the program staff share an office and have frequent informal communication.

### C. Communication Between Program Staff and Others

1. Monthly meetings are held between program staff and high school counselors to exchange information and work on mutual problems.

2. A list of opportunities is sent out by the associate director to inform counselors of available jobs.

3. Telephone contact is maintained between high school counselors and potential employers.

## Statement of the Problem

It was felt that more detailed information on the kinds of students served and the way in which the program operates for the benefit of these students was desirable. Therefore, the problem for evaluation was to augment the program definition as to the entering behaviors of students and the process by which these behaviors are changed.

## Method

Since this program is concerned with the placing of students who are characteristically "difficult to place" and emphasizes the use of adjustive counseling on an individualized basis, it was felt that case studies would provide the most useful information on entering behaviors and program processes. Therefore the Associate Director of Employment Supervisors was asked to furnish a number of case histories which would illustrate the range of problems and the kinds of treatment which are handled by her office.

## Results

The five case histories submitted by the Associate Director of Employment Supervisors are reproduced verbatim in Appendix C.

The cases consist of two graduates found in a follow up, a Juvenile Court referral, an academic problem, and a potential dropout. Jobs were found for the first four cases; one became a gasoline attendant, one a mail-room worker, and two stock boys. The emphasis of the program, however, is not on job placement alone, but also on adjustive counseling to help the student use the job as a step in further growth. In the fifth case the potential dropout was persuaded to remain in school after an extensive schedule change had been arranged.

# APPENDICES

14-15

Appendix A

## GROUP INTERVIEW SCHEDULE
## EMPLOYMENT SUPERVISORS PROGRAM

### OBJECTIVES

1. What are the major objectives of this program in terms of student behavior? (What does the program expect to accomplish for students? What should students be able to do as a result of participation in the program?)

2. Are there secondary objectives which become means to the attainment of major program objectives? (Will student attitudes be changed? Will teacher behavior and/or attitudes be changed?)

3. Are any by-product benefits (benefits to parents, to teachers, to the community, to the school) anticipated?

### STUDENTS

1. What are the criteria for enrolling and keeping students in the program? (On what basis are individual students enrolled in the program--by school, grade, subject, personal characteristics, or performance? Do participating students become ineligible for the program after meeting certain performance standards or after a specified period of time?)

2. How can we determine and verify the point in time of each student's involvement in the program?

3. How or where can we obtain a precise list of the names of students enrolled or selected for the program?

4. What are the assumptions, if any, regarding the entering skills, knowledge, and attitudes of the students enrolled in the program? (Are students assumed to have certain entering behaviors and/or levels of competency which are prerequisite to success in or benefit from the program?)

## STAFF

1. What staff is required to carry out the program--teachers, supervisors, coordinators, specialists, and paraprofessionals?

2. What are the functions of staff members in the program? (How do teachers, supervisors, and paraprofessionals promote the objectives of the program?

3. What are the qualifications of staff members for fulfilling these functions? (What levels of competency are required or assumed?)

4. What are the specific behaviors expected of each group of staff members? (What specific tasks relevant to the program are to be performed and how are these to be performed by each group?)

5. What are the names and location of members of the program staff?

## MEDIA

1. What materials, equipment, and supplies are required to carry out the program?

2. How can these be identified, and where are they located?

3. How will these media contribute to the objectives of the program? (How will they affect the student in order to elicit specific behaviors--shape the environment, structure perception or supply cues to evoke desired responses?)

## STUDENT ACTIVITIES

1. What activities are specified for students in the program? Is there a necessary sequence for these?

2. How will student activities contribute to the objectives of the program? (How will they affect the student in order to elicit specific behaviors--by structuring perception, developing skills or fostering attitudes?)

## TIME

1. When and for how long does the program take place? (Does it begin and end on specific dates? Does it continue from year to year?)

2. What is the duration of treatment for the individual student?

## COMMUNICATIONS

1. How and to what extent do program staff members at various levels of authority communicate in regard to the purposes, method, and operations of the program?

## SUPPORT

1. What administrative support is necessary to operate the program?

2. What steps are taken to insure this support?

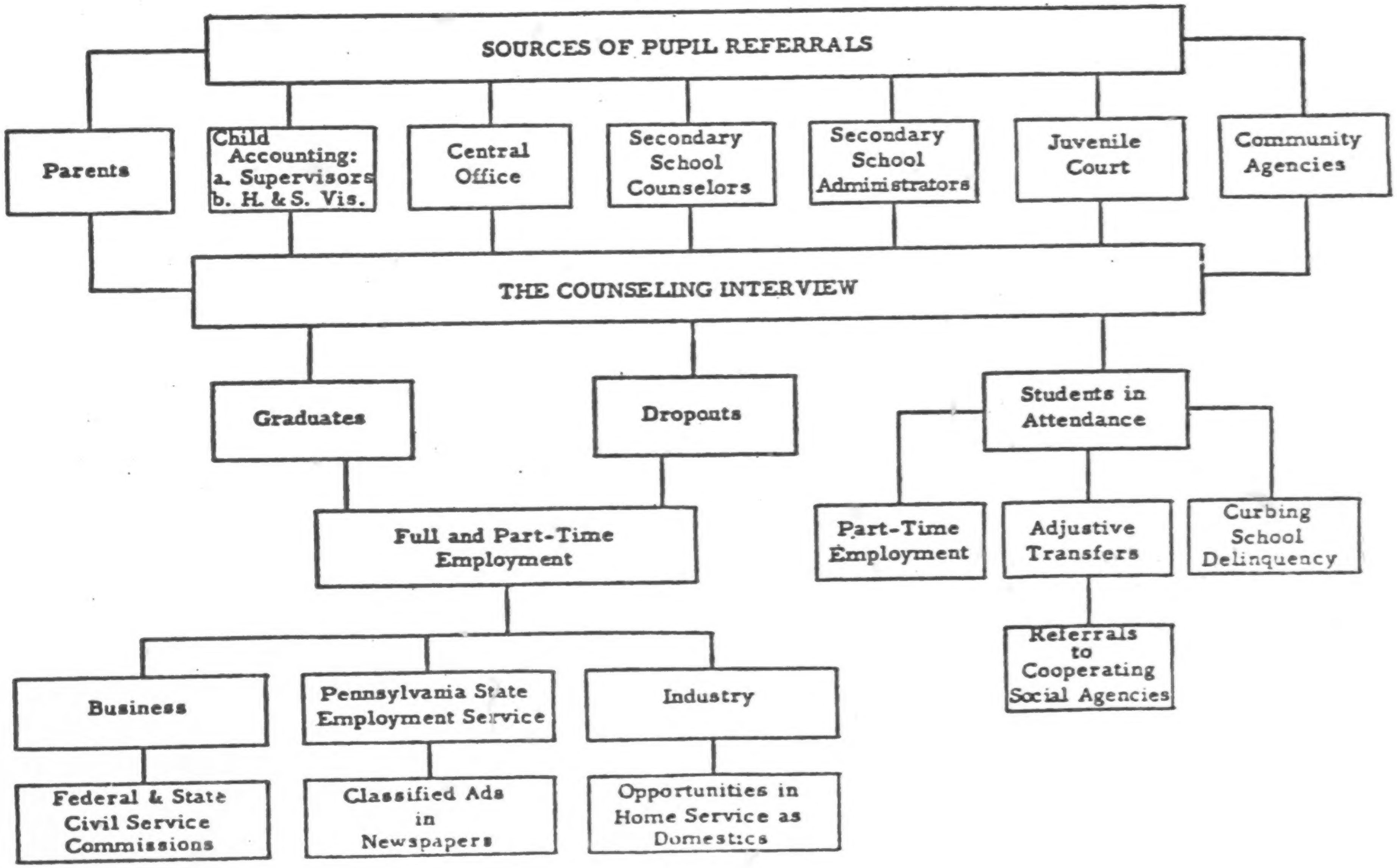
Appendix B

Pittsburgh
Public
Schools

Division
of Pupil
Services

## OFFICE OF VOCATIONAL PLACEMENT
## Referral Process for Job Placement and Adjustive Counseling

May 6, 1963


SOURCES OF PUPIL REFERRALS
Parents
Child Accounting: a. Supervisors b. H. & S. Vis.
Central Office
Secondary School Counselors
Secondary School Administrators
Juvenile Court
Community Agencies
THE COUNSELING INTERVIEW
Graduates
Dropouts
Students in Attendance
Full and Part-Time Employment
Part-Time Employment
Adjustive Transfers
Curbing School Delinquency
Referrals to Cooperating Social Agencies
Business
Pennsylvania State Employment Service
Industry
Federal & State Civil Service Commissions
Classified Ads in Newspapers
Opportunities in Home Service as Domestics

# APPENDIX C

22-23

Early in the summer of 1966, each of the senior high schools of the City of Pittsburgh sent to the Vocational Placement Office a list of 1966 high school graduates with individual notations covering immediate plans of each one. On the list of graduates from #4 High School, "Mr. C" was categorized as "Entering Military Service." For this reasons no attempt was made to contact "C."

After graduation from high school, "C" was married to another graduate of #4 High School. Early in 1967 we learned through his wife that "C" was not in the Armed Forces, but was looking for a job. She explained that he had been rejected for military service because of a heart ailment. We asked "C" to come to the office for an interview.

"C" presented himself well in interview. He is a bright boy, well spoken, and ambitious to continue his education. Since we felt confident that "C" would pass the basic intelligence test for employment at a neighboring university, we called the director of employment to set up an appointment for "C" to make an application for employment. "C" made the application and was hired to work in the mail-room. Among the fringe benefits afforded to employees of the university is a tuition allowance; "C" is planning to take advantage by attending evening classes.

"Mr. and Mrs. C" are expecting their first baby within a few weeks. "Mrs. C" plans later to take a job; her mother has offered to take care of the baby.

It is the long range plan of the "C" family for "Mr. C" to go to college full-time someday. It is possible that the Pennsylvania Bureau of Rehabilitiation may take care of his tuition at that time. In the meantime he is taking a few credits and earning a good living wage.

Early in the summer of 1966 the Vocational Placement counselor called every non-college bound 1966 graduate of the sixteen city high schools. Among the unemployed graduates was "Mr. L," recipient of a certificate from one of the schools. A young man of low-average intelligence, "L" had persevered through the General curriculum and had completed metal and electrical shops.

The phone conversation led to scheduling of an appointment for a personal interview with "L." When he presented himself at the Vocational Placement Office, it was apparent that his extreme shyness would be a handicap to him when he applied for jobs. A series of unsuccessful job interviews proved this to be the case - employers were not inclined to give "L" a chance. Slowly, with coaching from us, "L" began to gain confidence in himself. This took several months.

In November, 1966, he was recommended for a stock boy job at a films company where he worked when his employer needed him. This arrangement was permanent but never full-time. After the Christmas holidays, "L's" services were needed only a few hours per week, and "L" began looking for another job, hopefully a full-time permanent one.

About this time the personnel director of a publishing company registered his need for a full-time messenger-stock boy. "L" was recommended. The Vocational Placement staff member provided the employer with a description of "L's" personality, experience as a stock boy, and academic record, including mention of the shop courses. The employer interviewed "L" and hired him.

There is a possibility that "L" will return to Connelley Technical School in the fall in order to study under the Manpower program. In this case, he will continue to work for the publisher after school and Saturdays. "L" says he likes this job very much, and his employer is pleased with his work.

Mr. "O" comes from a very good home, full of advantages. His father is a professional man. The boy has a talent and love for art--nothing else in the high school curriculum appeals to him. His art teacher has his admiration and respect. He has absolutely no regard for any other subject or any other teacher. He cut all his classes, except art. In order to get out of the dilemma of being a truant, he came to us for "any kind of a job" that would permit him to get signed out of school at the age of 16.

Here is a young man who did not need the job for maintenance of his family or himself. He was prepared for no job but the most menial one that would require no skill. The boy is extremely bright and has college potential if he would apply himself. The family had gone so far as to send him for psychiatric help.

He refused to dress in conformity with his classmates. He was withdrawn and had no desire to socialize with the members of his class. He made every effort by dress to be known as a "beatnik," a non-conformist.

I knew that there was an excellent course in commercial art being taught in his building. I made arrangements with his principal to saturate this boy with art instruction for the rest of the current semester. The principal agreed. So did his family. In addition to his regular art assignment, Mr. "O" spends all afternoon in the commercial art class. He does not have to be prodded to come to school now. He reports regularly. We are hopeful that he will attend summer school for two of the classes he gave up this semester. We will again review this case in June.

This case study comes under the caption of adjustive counseling in which the Office of Vocational Placement is actively engaged.

"O" was offered and accepted a job for weekends as a vendor at Forbes Field.

"Mr. Q," just past his sixteenth birthday, was referred to Vocational Placement early in April, 1967.

Investigation of "Q's" school record disclosed the following history: Although possessing high average intelligence, he has been an average student. During the school year 1965-66 he had passed all subjects excepting social studies, which he had passed in summer school.

During the current school year, 1966-67, however, "Q" has gone into an academic tailspin. About April 1, "Q's" English teacher called "Q's" inactivity to the attention of his high school counselor. Although "Q" has not misbehaved in English class, he has simply not participated in class. Upon further investigation, the counselor learned that "Q" was presenting a behavior problem in Spanish class and was making no effort at all to pass math or biology.

Several conferences with "Q's" mother and one conference with his father have not revealed any explanation for "Q's" slump.

"Q's" parents and his counselor had decided that the behavior pattern of the boy called for a radical change to jog him into some appreciation of the educational advantages of attending school. The counselor suggested placement of "Q" on a temporary job. "Q" will work until he starts to summer school. "Q" will return to high school in the fall.

As a stock boy at a wholesale textile company, "Q" seems to be turning over a new leaf. His employer understands the fact that "Q" will work only until summer school. "Q" and his parents are optimistic about the arrangement since it will not mean permanent suspension from school but will provide "Q" with another chance. He is enjoying his work and his employer is pleased with his eagerness to learn.

Master "X" came to us from Juvenile Court for job placement. He was the only child of a divorced mother who worked long hours as a waitress. There was very little dialogue between mother and son. He refused to go to school, idled his time away with other truants, got himself into minor difficulties, and was quite non-communicative when he reached the Office of Vocational Placement.

He was placed with an understanding employer as a gasoline station attendant. After he had worked there for six months, he requested his employer to withhold $25.00 from his weekly paycheck, so that he could accumulate $500.00 to make a down payment on a house in Crafton. He was doing this for his mother, after having been such a worry to her!

Arrangements were made by his employer with a Squirrel Hill bank for the deposit of $25.00 a week for a period of five months. All this time, young "X" worked without any absence from his job. His employer found him trustworthy and trainable. Young "X" opened the door for others to be considered for employment, based on his own satisfactory performance.

The young man has now become a property owner, having made a down payment on a home; his mother is very well satisfied with his growth on the job; the boy is training for a GED test; he is keeping steady company with a young lady; he drives a car which he reconditioned on his own time. He has plans for the future to lease his own gas station.

In this case, the job was the motivating factor.

# 4. FAMILY RELATED EDUCATION PROGRAM

## 4. FAMILY RELATED EDUCATION PROGRAM

### Introduction

History of the Program

The Family Related Education Program was initiated by a Ford Foundation grant in September of 1964 in order to provide classes and activities for adults whose interests could not be met by the standard adult evening school programs. In particular, a different organization from that of the adult evening school was desired. It was hoped that the program would be sensitive to the needs, conditions, and opportunities of persons in poverty areas within the city of Pittsburgh who were not being reached by existing educational programs. The program was designed to bridge the gap between these disadvantaged people and the schools and to provide an additional way in which the schools, parents, and children could join in a common educational endeavor. In order to accomplish these objectives, classes were to be held at times and places convenient to the adults who wished to enroll, since some could not attend in the evening and others were reluctant to be out after dark.

During its first year of operation, the Family Related Education Program served approximately 490 adults in the Hill District schools--Forbes, Letsche, Madison, McKelvy, Miller, Vann, and Weil, the latter also being the program's headquarters. The classes consisted in part of Negro history, interior decorating, millinery, sewing, leadership training, and public speaking. The staff was made up of a coordinator and about 12 volunteers.

In September of 1965 the Office of Economic Opportunity provided funds for the program, allowing for the expansion of the staff to include two physical education teachers, three full- and one part-time homemaking counselors, and one industrial arts teacher. Homemaking apartments were secured, rent-free, in various poverty areas in the city, enabling the program to broaden its base of operation and to offer a greater variety of classes. The new locations were an incentive for greater attendance, and the number of participants in the program almost doubled. To attract children, new classes were added--for example, in babysitting. In addition, afternoon classes were offered, something which had seldom been done during the first year.

Due to the cutting of Economic Opportunity funds for all programs in September of 1966, it was necessary to reduce the staff of the Family Related Education Program to the coordinator and two full- and one part-time homemaking counselors. As a result, the number of participants dropped to the level of the first year of the program's operation. Despite these facts, the variety of classes was maintained, the program spread to the North Side, and morning classes were added.

During the 1966-1967 school year, the Office of Economic Opportunity once again cut its funds, and it became necessary to end the Family Related Education Program.

## Description of the Program

Definition meetings for the Family Related Education Program were held on March 21 and April 4, 1967 at the program office at Weil School. Ten persons, representing administrators, program staff, and the Office of Research, attended. Using the circular response method of discussion, they addressed themselves to a series of questions devised by the Office of Research to elicit specific information about the program (see Appendix A for Group Interview Schedule). The results of this meeting were formulated into the program definition, which is presented in the following section of this report to provide a description of the program.

# FAMILY RELATED EDUCATION PROGRAM DEFINITION

## GENERAL

### I. Overall Statement of Objectives and Rationale for the Program

The Family Related Education Program was established to provide classes for adults whose interests were not met by the standard adult evening school program. The overall objectives were to assist families in adjusting to their urban environment, particularly its institutions of education, health, public safety, and recreation, and to improve family life.

### II. Scope

#### A. Number of Pupils and Schools Involved

Approximately 500 people participate in classes throughout the year. However, at any one time, the program may have only 150 people participating, this being a function of the number of classes in operation. The schools used by the Family Related Education Program are the following:

Letsche Elementary School
McKelvy Elementary School
Miller Elementary School
Manchester Elementary School
A. Leo Weil Elementary School

Homemaking apartments are located at the following places:

Terrace Village
251 Burrows Street

Northview Heights
651 Mount Pleasant Road

Arlington Heights

#### B. The Grades or Ages of Participants

The ages of the participants vary a great deal as a function of the kinds of classes that are offered. Generally, the majority of participants are young adults just beginning to raise families, although children, middle-aged, and elderly people also participate.

## C. General Description of Staff

The staff of the Family Related Education Program is comprised of three homemaking counselors, a coordinator, and volunteers who offer their services to the program in the areas of their own specialties and interests.

## OUTCOMES

I. Major Objectives--changes expected to occur in program participants as a result of the program. There are two types of major objectives.

A. Terminal Objectives--behaviors exhibited by participants at the end of the program which demonstrate successful completion of the program

At the end of the Family Related Education Program the following aspects of family life should be improved:

1. Relationships among family members
2. Standard of living
3. Interest of all family members in the academic work of the children
4. The role of the woman as a homemaker, mother, and wife
5. Appreciation of beauty and culture
6. Adjustment to an urban setting
    a. The neighborhood and neighbors
    b. The social institutions of health, education, public safety, and recreation

Concomitant with improvements in family life, it is expected that school-age children will demonstrate improvements in the following areas:

1. School behaviors
2. Adjustment to the classroom
3. Grades
4. Use of leisure time
5. Knowledge about immediate and future opportunities for money-making careers

B. Ultimate Objectives--the long range goals of the program. These are objectives to which the program hopefully contributes, but for which it does not have sole responsibility

It is hoped that through the Family Related Education Program participants will gain the following:

1. Higher cultural standards
2. The ability to play a productive role in their urban setting
3. A greater understanding of education
4. Favorable attitudes toward racial integration
5. An improved employment situation
6. Greater community involvement on the part of the children
7. A feeling of satisfaction derived from doing something creative, something different from the normal routine

II. Enabling Objectives--the skills, attitudes, and information which students must acquire during the program to insure the accomplishment of the major objectives

A. In order to accomplish major objectives, the adults in the Family Related Education Program must first develop the following:

1. A positive change in consumer knowledge and skills
2. An increased proficiency in and knowledge of homemaking skills
3. Communication and friendships with their neighbors

B. In order to accomplish major objectives, children in the Family Related Education Program must first develop or experience the following:

1. An acceptable code of behavior
2. An improved self-image

3. Reinforcement of the things they are taught in schools

4. Extra-curricular programs and activities to compensate for those they may lack in school

III. Other Benefits--benefits expected to accrue to other than program participants as a result of the program

No benefits of this type were specified for the Family Related Education Program

IV. Criteria for Successful Completion of or Removal from the Program

No such criteria were specified for the Family Related Education Program.

## ANTECEDENTS

I. Participants

A. Selection Characteristics--the criteria that are used to determine who shall participate in the program

The program is geared to people of a low-income, culturally-deprived background. However, there are no criteria for selection. The program is open, without reference to age, sex, race, or area of residence, to all who wish to participate.

People usually enter the program through one of the following channels:

1. Their own initiative, having discovered the program through the descriptive leaflets and flyers which are distributed

2. Referral by city, state, and neighborhood agencies and community action programs

3. Recommendation by neighborhood educational committees and school officials

B. Entering Behaviors--characteristics of participants (other than selection characteristics) which are related to performance in the program

It is assumed that most of the adults entering the program started their families at an early age and are now faced with family or social problems.

II. Staff--qualifications with respect to specific positions

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Coordinator | A college degree | 1. Administrative skill<br>2. The ability to relate to the people involved in the program |
| Home Economics Supervisors | | |
| Homemakers | 1. A B.S. in home economics<br>2. Compliance with Board qualifications<br>3. Experience in community work | 1. An interest in people<br>2. Emotional stability |
| Volunteers | Skills necessary to the work they are to do | 1. At least 21 years of age<br>2. Freedom to travel |

III. Support

A. Administrative Support--administrative personnel who cooperate in carrying out the program

The Central Office Staff sets up office structures in the schools involved and serves as a liaison between the Family Related Education Program and the other departments in the Board.

B. Human Resources--non-administrative and non-staff personnel whose contributions and cooperation are necessary to the operation of the program

No human resources were specified for the Family Related Education Program.

C. Media--the materials, supplies, and equipment required for program activities

1. Books
2. Tapes and films
3. Other visual aids
4. Blackboards and bulletin boards
5. Teaching supplies
6. Art supplies and house paints
7. Foods
8. Sewing equipment and fabrics
9. Office supplies
10. Cleaning and janitorial supplies
11. Household furnishings and appliances

D. Facilities

Demonstration apartments with telephones are required for the operation of the Family Related Education Program.

IV. Time Constraints

The duration of participation depends upon the desires and needs of the participants.

## PROCESS

I. Participant Activities--the day-to-day program activities that will ultimately lead to the achievement of objectives

Students and adults in the program are involved in the following activities:

A. Fashion shows in which they model
B. Classes in which they make Christmas decorations and gift items
C. A senior citizens' craft class
D. An art class in which participants learn to make patterns, forms, and shapes and do drawing and sketching
E. A leadership training class in which participants learn to lead and participate in discussions
F. A baby sitters' training class which teaches child care
G. A community group
H. A class in which mothers learn to cut their children's hair
I. Adult tutoring classes

J. A new horizons program which provides play activities, films, discussions, and counseling for students
K. A slim and trim class in which participants are taught basic nutrition, meal planning, and exercises
L. A food preservation class which teaches canning
M. A family choir group
N. A class in flower arrangement
O. A charm class for students
P. A program through which children are provided with a play period while adults discuss various common problems related to child care
Q. A clothing construction class
R. A course in which participants learn to make draperies
S. A foods class for preparation and evaluation of foreign and American foods
T. A course in furniture refinishing
U. An interior decorating class
V. A knitting class
W. A course in money management
X. A class in which participants learn to make slip covers

There is no set sequence for these activities. The staff determines whether participants should enter beginning or advanced classes.

## II. Staff Functions and Activities

### A. Staff Functions and Duties with Respect to Specific Positions

| Staff Members | Functions | Duties |
|---|---|---|
| Coordinator | 1. Provides supervision and guidance for the Homemakers | Makes suggestions |
| | 2. Supports all components of the program | a. Makes out the budget and payroll<br>b. Recruits personnel<br>c. Is responsible for the safety and security of the staff |

| Staff Members | Functions | Duties |
|---|---|---|
| Coordinator (Contd.) | | d. Secures locations for the classes<br>e. Obtains furniture<br>f. Aids in the transportation of equipment and supplies |
| | 3. Manages the office | |
| | 4. Acts as a public relations and community development person | a. Creates an awareness of the program and "sells" it within the community<br>b. Interacts with various organizations and groups within the community |
| | 5. Interprets and formulates policy | Acts as a liaison between the program staff and the Compensatory Education Department |
| Home Economics Supervisor | Assists Coordinator in supervising home economics activities | |
| Homemaker | 1. Teaches homemaking skills | a. Prepares weekly lesson plans<br>b. Prepares written materials for distribution to the class<br>c. Prepares visual aids for class |

| Staff Members | Functions | Duties |
|---|---|---|
| Homemaker (Contd.) | | d. Provides individualized instruction for participants<br>e. Prepares and gives demonstrations, including shopping trips<br>f. Does research to prepare for new classes |
| | 2. Counsels | a. Organizes and develops group leadership<br>b. Helps women to improve their family relationships |
| | 3. Handles pertinent administrative details | a. Helps in scheduling of classes<br>b. Prepares advertisements for classes<br>c. Keeps records of expenditures<br>d. Makes reports on activities<br>e. Makes referrals to other agencies<br>f. Evaluates classes<br>g. Maintains sewing machines and does light housekeeping in the apartments |
| Volunteer | 1. Teaches | a. Submits lesson plans<br>b. Submits attendance records |

| Staff Members | Functions | Duties |
|---|---|---|
| Volunteer (Contd.) | 2. Directs group activities | |

B. Intra-staff Communication and Coordination

Intra-staff communication for the Family Related Education Program consists of the following:

1. Staff meetings
2. Written communications
    a. Reports made by the homemakers to the Coordinator every nine weeks
    b. Weekly lesson plans submitted by the homemakers
3. Phone communications -- staff members phone in each time they enter and leave an apartment
4. Weekly individual meetings initiated by the Coordinator
5. Informal get-togethers in which the homemakers participate

## Statement of the Problem

The problem for evaluation was to determine the sex, age, marital status, number of children, religion, income, race, and occupation of persons enrolled in the Family Related Education Program, as well as certain of their attitudes toward education, health, public safety, recreation, urban environment, family cohesiveness, and socio-economic status.[1] It was hoped that such an investigation would lead to a better understanding of the participants in the program, enabling the staff to provide effective program development.

## Method

In order to collect the data required to answer the preceding questions, a questionnaire was administered to the participants in all Family Related Education classes as of January 1967. One hundred forty-seven questionnaires were returned, with the respondents representing each of the eight poverty areas designated by the Mayor. A copy of the questionnaire is included in Appendix B.

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[1] Data on some of these variables were not analyzed because of a lack of time and resources. Those desiring information not reported here may obtain it by writing to the evaluator.

## Results

### Sex

One of the goals of the Family Related Education Program is to improve "the role of the woman as a homemaker, mother, and wife." Therefore, many classes were concerned with the development of such homemaking skills as child care, interior decorating, cooking, sewing, and flower arrangement. These courses were designed to attract women rather than men and, since many of the other classes were held during working hours, it would be unlikely that many men could attend. Accordingly, 87 percent of the questionnaire respondents were female. One respondent did not indicate sex.

### Age

The Family Related Education Program, in addition to being concerned with adults, is also designed for young adults and children. Table 1 shows that a majority of the participants in the Family Related Education Program are younger than 18, the remainder being rather evenly divided between middle age and older.

TABLE 1

Age Range of Participants

| Age Range | Frequency | Percent |
|---|---|---|
| 43 years of age and older | 26 | 21.4 |
| Between 19-42 years of age | 32 | 26.6 |
| 18 and younger | 63 | 52.0 |
| Total | 121* | 100.0 |

* 26 respondents omitted this item

## Marital Status

Table 2 shows that the participants are divided almost equally between single and married persons, with over 10 percent falling into the widowed category.

TABLE 2

Marital Status of Participants

| Status | Frequency | Percent |
|---|---|---|
| Single | 62 | 44.0 |
| Married | 57 | 40.4 |
| Divorced | 2 | 1.4 |
| Separated | 4 | 2.8 |
| Widowed | 16 | 11.4 |
| Total | 141* | 100.0 |

* 6 respondents omitted this item

## Number of Children

It is an assumption in the definition of the Family Related Education Program that most adults entering the program started their families at an early age and are now faced with family or social problems. However, data gathered through the questionnaire indicate that over half (56 percent) of the participants have no children. Of the remaining 44 percent, only a third have four or more children. Not only does this suggest that people with large families find it difficult to participate in adult education programs, but also that such programs might be designed to concentrate on the needs of small families and people with no children.

## Income

The Family Related Education Program is aimed at reaching people in low income areas. Approximately half of the participants answering this item indicated incomes less than $3,000, conforming to the OEO-CAP income criterion. However, since no attempt was made to restrict participation in the program, other income brackets are also represented. About a third of the participants making over $3,000 had incomes which might be considered low, but almost 20 percent earned over $6,000. This information is presented in Table 3.

TABLE 3

Participants' Estimate of Family Income

| Income Range | Frequency | Percent |
|---|---|---|
| Less than $3,000 | 42 | 48.3 |
| $3,000 to $4,499 | 16 | 18.4 |
| $4,500 to $5,999 | 13 | 14.9 |
| $6,000 or more | 16 | 18.4 |
| Total | 87* | 100.0 |

*60 respondents omitted this item

## Race

Since the program is geared to low income people with a culturally deprived background and since Negroes constitute the bulk of low income people in the city of Pittsburgh, a large representation of this racial group would be expected in the program. Indeed, 75 percent of those responding to the item of race were Negroes.

## Occupation

Of those responding to the question, "Is the head of your household now working? ", almost 73 percent answered "Yes." The occupations specified by respondents are presented in Table 4.

## TABLE 4

### Occupations of Participants

| Type of Occupation | Frequency | Percent |
|---|---|---|
| Processing | 16 | 17.0 |
| Domestic Service | 12 | 13.0 |
| Processing of metal | 8 | 8.0 |
| Construction | 7 | 7.0 |
| Barbering, cosmetology, and related | 4 | 4.0 |
| Education | 3 | 3.0 |
| Managers and officials | 3 | 3.0 |
| Salesmen (services) | 3 | 3.0 |
| Salesmen (commodities) | 3 | 3.0 |
| Merchandising | 3 | 3.0 |
| Lodging and related | 2 | 2.0 |
| Protective service | 2 | 2.0 |
| Building | 2 | 2.0 |
| Fabrication and repair of wood products | 2 | 2.0 |
| Miscellaneous service | 4 | 4.0 |
| Other # | 14 | 15.0 |
| Uncategorized | 6 | 6.0 |
| Total | 94* | 97.0x |

* 53 respondents omitted this item

# Indicates one case per occupation

x Rounding error

# APPENDICES

## Appendix A

## GROUP INTERVIEW SCHEDULE
## FAMILY RELATED EDUCATION PROGRAM

### OBJECTIVES

1. What are the primary objectives of the Family Related Education Program in terms of adult and/or student behavior? (What does the program expect to accomplish for adults? What should adults be able to do as a result of participation in this program? What skills or talents will they acquire? What knowledge will they gain?)

2. What are the major objectives for each part of the Family Related Education Program--regularly scheduled classes, neighborhood seminars, workshops, evening recreation, and homemaking services?

3. Are there secondary objectives which become means to the attainment of major program objectives? (How will adult attitudes and/or behaviors be changed?)

4. Are any by-product benefits such as employment opportunities for adults or school adjustment of children anticipated?

### SELECTION OF PARTICIPANTS

1. What are the criteria for enrolling and keeping adults in the program? (On what basis are individual adults enrolled in the program--by sex, age, social class, subject, personal characteristics or performance? Do participating adults become ineligible for the program after meeting certain performance standards or after a specified period of time?)

2. What are the characteristics of the people enrolled in the program? (Are they assumed to have certain entering behaviors and/or levels of competency which are prerequisite to success in or benefit from the program? What are their entering skills, knowledge, and attitudes?)

## STAFF

1. What staff is required to carry out the program--teachers, counselors, volunteers, supervisors, coordinators, specialists, or paraprofessionals?

2. What are the functions of staff members in the program? (How does each level of staff promote the objectives of the program? )

3. What are the specific behaviors or duties expected of each group of staff members? (What specific tasks relevant to the program are to be performed and how are these to be performed by each group?)

4. What are the qualifications of staff members for fulfilling these functions? (What levels of competency are required or assumed? )

## MEDIA

1. What materials, equipment, and supplies are required to carry out the program?

2. How will these media contribute to the objectives of the program? (How will they affect participants in order to elicit specific behaviors--by shaping the environment, structuring perception, or supplying cues to evoke desired responses? What is the purpose of awarding certificates in the classes? )

## PARTICIPANT ACTIVITIES

1. What activities are specified for participants in the program? Is there a necessary sequence for these?

2. How will adult activities contribute to the objectives of the program? (How will they affect participants in order to elicit behaviors--by structuring perception, developing skills or fostering attitudes? )

## COMMUNICATION

1. How and to what extent do program staff members at various levels of authority communicate in regard to the purposes, methods, and operation of the program?

## SUPPORT

1. What administrative support is necessary to operate the program? (What facilities are needed? What scheduling of classes or other activities are needed?)

2. What steps are taken to insure this support?

Office of Research
January 1967

Appendix B

## QUESTIONNAIRE
## FAMILY RELATED EDUCATION PROGRAM

This questionnaire is part of a study being made to obtain information for the Family Related Education Program in your neighborhood. Do not put your name any place on this paper. The information collected will be kept confidential.

GO THROUGH THE QUESTIONNAIRE QUICKLY, WITHOUT SPENDING TOO MUCH TIME ON ANY SINGLE QUESTION. MOST OF THE QUESTIONS CAN BE ANSWERED BY MARKING A CHECK MARK LIKE THIS _✓_ ON THE LINE BESIDE THE ANSWER THAT YOU CHOOSE. MARK ONLY ONE ANSWER FOR EACH QUESTION.

---

1. Please list below all classes you are currently taking in the Family Related Education Program:

| Name of Class | Place | Day | Time |
|---|---|---|---|
| ________ | ________ | ________ | ________ |
| ________ | ________ | ________ | ________ |
| ________ | ________ | ________ | ________ |
| ________ | ________ | ________ | ________ |
| ________ | ________ | ________ | ________ |

2. Sex:

______Male
______Female

3. Marital status:

______Single
______Married
______Divorced
______Separated
______Widowed

4. What is your birthdate?

______________________________
Month Day Year

5. Race:

______Negro
______White
______Other (Specify) ______________

6. Do you attend church or synagogue:

______At least once a week
______Once a month
______Few times a year
______Only on important occasions
______Never

7. What is your religious preference?

______Protestant
______Catholic
______Jewish
______Other (Specify) ______________
______None

8. How often do you visit your relatives?

______Once a week
______Several times a month
______Once a month
______Less than once a month
______Never

9. How often do you visit with one or more of your friends?

______Once a week
______Several times a month
______Once a month
______Less than once a month
______Never

10. Do you have any children?

______Yes
______No

If yes, how many? ______children

11. How many children do you have now living at home?

______children

12. How many people, other than children, live in your home (including yourself)?

______people

13. How much do you like living in the neighborhood you now live in?

______Very much
______Some
______Little
______None

14. How often do you go to the movies?

______Once a week
______Several times a month
______Once a month
______Less than once a month
______Rarely
______Never

15. Most people can be trusted:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

16. Please make the best estimate you can of your family's total income for last year. Include money earned by everyone in your household and money received from pension or public assistance.

______Less than $3,000
______$3,000 to $4,499
______$4,500 to $5,999
______$6,000 or more

17. Most policemen in Pittsburgh are good:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

18. A person has to live pretty much for today and let tomorrow take care of itself:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

19. How well do members of your family get along with each other?

______Extremely well
______Rather well
______Only somewhat well
______Somewhat poorly
______Rather poorly
______Extremely poorly

20. How many hours a day do you watch television?

______Less than one hour
______One to three hours
______Three to five hours
______Five or more hours

21. If you were asked to use one of the following names to describe your family's social group, which would you use?

______Upper class
______Upper middle class
______Middle class
______Lower middle class
______Lower class

22. It is important for a person to be healthy:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

23. How often do you and your family do things together?

______All of the time
______Most of the time
______Frequently
______Occasionally
______Very seldom
______Never

24. What we need are more laws; right now, there are too few of them:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

25. Programs like the Family Related Education Program are a substitute for actually helping people:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

26. How often do the members of your family disagree enough with each other to become angry?

______All of the time
______Most of the time
______Frequently
______Occasionally
______Very Seldom
______Never

27. Do teachers really care about children?

______Yes
______No

28. How often do the members of your family help each other?

______All of the time
______Most of the time
______Frequently
______Occasionally
______Very Seldom
______Never

29. Do you belong to your local Parent Teacher's Association?

______Yes
______No

30. Which of the following best describes your family's financial condition?

______Wealthy
______Well-to-do
______Very comfortable
______Fairly comfortable
______Have the necessities
______Barely able to make a living

31. Do you think most policemen are unfair in dealing with people like you?

______Yes
______Sometimes
______No

32. Have you ever advised your friends to go to any special educational programs like this one?

______Yes
______No

33. People should go to a doctor at least once a year for a check-up:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

34. How would you describe the schools in Pittsburgh?

______Good
______Fair
______Poor

35. When you are feeling bad, when do you go to a doctor?

______Immediately
______Wait a while
______When very sick
______Usually don't go at all

36. How happy is your family life?

______Very happy
______Fairly happy
______Not very happy
______Very unhappy

37. When you or a member of your family is ill, where are you most likely to go for help?

______Hospital emergency ward
______Private hospital
______Clinic
______Private physician (Your family doctor)

38. How does your family's standard of living compare with that of most of the families in your neighborhood?

______Above average
______Average
______Below average

39. Meeting the needs of people is the responsibility of the people themselves and their families, and not of the city:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

40. How important is your family to you?

______Very important
______Fairly important
______Not too important
______Not important at all

41. If you saw some policemen stopping cars ahead of you and asking questions, would you detour around the block to miss them?

______Yes
______Maybe
______No

42. Is the head of your household now working?

______Yes
______No

43. What kind of work does the head of your household normally do? (for example, carpenter, shoe salesman, factory worker, barber, cab driver)

____________________________

44. There are not enough effective neighborhood organizations:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

45. Things are changing so fast these days that one doesn't know what to expect from day to day:

______Strongly agree
______Moderately agree
______Slightly agree
______Slightly disagree
______Moderately disagree
______Strongly disagree

# 5. MENTAL HEALTH SERVICES PROGRAM

# 5. MENTAL HEALTH SERVICES PROGRAM

## Introduction

### History of the Program

In 1954, the Pittsburgh Board of Public Education recommended the employment of a psychiatrist as a consultant to the Pittsburgh Public Schools. Although this recommendation was not implemented for some time, a broader program was conceived over the years through the combined thinking of the Division of Pupil Services, the Division of Instructional Services, and the Division of Medical Services.

Under the joint sponsorship of the Pittsburgh Board of Public Education's Team Teaching Program and the Health and Welfare Association, the first mental health team was established in the Hill District in 1961. The team functioned much as a child guidance clinic housed in a school system. It was selective in accepting referrals from school personnel and traditional in its methods of diagnostic evaluation. Fifty-one children were seen individually in the 1962-1963 school year, 74 in 1963-1964. The complete program was described in a report published by the Pittsburgh Board of Public Education in 1964.[1]

Under the Division of Compensatory Education, a second mental health team was established on the North Side in June 1965. Both teams were discontinued when funding from OEO expired in July 1966. An evaluation of these programs was included in a report published in 1966 by the Pittsburgh Public Schools.[2]

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[1] Ruth Kane, Aileen Birmingham, and R. A. Kerchner, A Comprehensive Mental Health Team Approach to Learning Problems of School Children in a Culturally Deprived Area, Mimeographed Report, Pittsburgh Public Schools, 1964.

The present Mental Health Services Program (MHS) was established in November 1965 by a three-year grant to the Pittsburgh Public Schools from the Maurice Falk Medical Fund. This grant was supplemented by OEO and Ford funds which are expected to be replaced by state reimbursement beginning in September 1967. The program, a subdivision of the Office of School Services, was set up to provide comprehensive mental health services to the schools. Administrative relationships between the psychiatrist-director of the MHS Program and school personnel were considerably different from those of the previous mental health teams. The present staff is an integrated, organic part of the central administration and is seen as such by most school personnel.

## Description of the Program

Philosophy. Several assumptions underlie the development of the MHS Program:

1. The school is the primary case-finding agency in the community for the identification of emotionally disturbed children. In view of compulsory attendance and the central importance of

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[2] Vivien Richman, Mental Health Services, Pittsburgh Public Schools, 1966.

the school in the life of the child, the school is also the primary mental health agent. This position is taken by many writers in the field:

> The school's responsibility for mental health pertains not only to the happiness and adjustment of individuals, but also to healthy group living in society at large. Through its influence on the developing personalities of children, the school plays its distinctive role in relation to the mental health of the community.[3]

An even stronger position was taken by the Director of the Mental Health Study Center of the National Institute of Mental Health:

"I am persuaded that no formal publicly supported institution plays a more crucial role or harbors more potential in behalf of individual mental health than our school system."[4]

2. Treatment or help for emotionally disturbed children, if not provided in the schools, may not be provided at all. Of the estimated number of emotionally disturbed children in Allegheny County, only about 5 percent received treatment from other community agencies.[5] The remaining untreated 95 percent constitute the major focus for concern by the schools.

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[3] Community Programs for Mental Health, ed. Ruth Kotinsky and Helen Witmer (Cambridge, Mass., 1955), p. 216.

[4] M. Krugman, Orthopsychiatry and the School, Amer. Orthopsychiatric Assn. (New York, 1958) p. 135.

[5] Report of the Committee on Services for Emotionally Disturbed Children, Health and Welfare Assn. of Allegheny County, February 1967, p. 10.

3. Traditional evaluative and diagnostic procedures have proven to be an uneconomical utilization of scarce mental health professionals.[6] The approach and the techniques of the MHS Program comprise an effort to deal constructively with this problem.

4. Considering the existence of mental health problems within the school and the acknowledged scarcity of mental health professionals, the MHS staff places considerable importance on training school personnel in mental health principles. Teachers stand in a critical relationship to the child, as stated by Louis Hay: "The community must recognize that teachers are the only trained social representatives who are in a position to contribute toward the better adjustment of the greater number of disturbed children."[7] There have been many other attempts to establish school-based programs to meet the needs of emotionally disturbed children. Kvaraceus[8] and Abramovitz[9] concentrated their efforts on

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[6] G. Caplan, Prevention of Mental Disorders in Children, (New York, 1961), p. 16.

[7] "A New School Channel for Helping the Troubled Child," Amer. Jour. of Orthopsychiatry, XXIII (1953), p. 676.

[8] William C. Kvaraceus, "Helping the Socially Inadapted Pupil in the Large City Schools," Exceptional Children, XXVIII (1962), 399-404.

[9] A. B. Abramovitz, "Exploring Potentials for Mental Health in the Classroom," Mental Hygiene XLIII (1959), 253-259.

teacher-training programs of in-service education and mental health seminars for school personnel. Felick[10] and Knobloch[11] also reported programs of in-service education and mental health seminars for school personnel.

5. The MHS Program was designed to be a resource to the total school. Facilities for the treatment and/or education of disturbed children in the community are scarce or non-existent. In some instances, the school has been forced to handle problems which should have been dealt with by other community agencies:

> The most serious social consequence of the compulsory attendance law may well be that, since its inception, all of our child-caring, remedial, and correctional agencies have fallen steadily behind the mounting need for their services. The need has been comfortably obscured by the expanding custodial role of the public schools, who are now expected to contain and somehow educate all children regardless of their degree of emotional disturbance and/or anti-social behavior, and/or inability to profit from what restricted programs the schools offer to the non-average.[12]

If schools identify and refer disturbed children to the appropriate agency, the community will be able to get a more accurate and realistic picture of urgent, unmet needs and plan accordingly.

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[10] M. L. Felick, "Observations on the Psychological Education of Teachers in a School-Based Mental Health Program," Mental Hygiene, XXXVIII(1954), 374-386.

[11] P. Knoblock and R. A. Garcea, "Toward a Broader Concept of the Special Class for Emotionally Disturbed Children," Exceptional Children, XXXI (1965), 329-335.

[12] Stonewall B. Stickney, "Schools are our Community Health Centers," Paper presented at Amer. Psychiatric Assn., 1967, p. 4.

The school may logically be recognized as the central agency in a comprehensive mental health plan for the community.

6. With the current MHS Program functioning somewhat as a demonstration project, it is hoped that the tempo, the methods, and the delivery of mental health services in the community will shift in the direction of the educational model, in both diagnostic and treatment approaches.

Components of the Program. There are four major components of the MHS Program: (1) the adjustment class and resource room programs, (2) consultation conferences, (3) crisis consultations throughout the school system, and (4) in-service education in mental health for school personnel. Other related activities developed as the program became established.

Adjustment Class Program. This program was designed to provide an optimum educational and therapeutic environment for elementary school children whose emotional maladjustments preclude their functioning adequately in the normal school program. Based on the principles of maximum containment of the child by the school and minimal use of the program, its ultimate purpose is to enable the school to cope with the child and the child to return to regular classes as soon as possible.

The first adjustment class was established at Colfax Elementary School by the Department of Special Education in September 1964, before the MHS Program was begun. The second class, opened early in 1965 at Weil Elementary School, also preceded the current MHS Program.

Both classes, taught by graduates of Syracuse University's Department of Special Education, were based on the educational methods of Cruickshank.[13] The third class was opened in March 1966 at Columbus Elementary School. In September 1967, the MHS staff established four new adjustment classes located at Arsenal, Friendship, Holmes, and Morse elementary schools. Although teachers for these programs were recruited at the last minute because of funding difficulties and had not been trained in the Cruickshank method, there was an effort made at patterning all the classes after the original one.

In-service education of these teachers occurred during the bi-weekly consultation conferences in their schools (described later in this report) and during bi-weekly meetings held after school hours with the psychiatrists, Program Coordinator, and Research Consultant. Instructional supervision was minimal until May 1967 when a specially trained supervisor was designated.

In general, there are four elements in the teaching environment common to all the classes: (1) reduced environmental stimuli, (2) reduced space, (3) a highly structured program, and (4) special teaching materials of increased stimulus value. Carrels or folding screens are used in each classroom to provide reduced working space and to eliminate distractions. In addition to regular teaching aids, teacher-made materials are utilized to help focus the child's attention on specific learning tasks. In some of the classes, special equipment and materials are provided for children with perceptual-motor dysfunctions in order to help establish and develop eye-hand coordination, figure-ground perception, and other skills.

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[13] William M. Cruickshank, Frances A. Bentzen, R. H. Ratzeberg, and Mirian Tannhauser, A Teaching Method for Brain-Injured and Hyperactive Children (Syracuse, 1961).

The teacher does not function as a therapist. His major objective is to enable the child, through a wide variety of techniques, to establish internal control of his own behavior and to acquire or develop the skills required for learning. When a child is first assigned to the adjustment class, he can, if necessary, spend his entire school day there. As soon as it is deemed appropriate by the teacher and the consultation conference group, he is gradually reintegrated into regular classes. Continued support of the child and the regular teacher to whom he is assigned is carried out by the adjustment class teacher.

Resource Room Program. In February 1965, Technoma, a private therapeutic day-care center for emotionally disturbed children, and the Pittsburgh Public Schools jointly established a demonstration program at Schenley High School. The program, designed to assist the disturbed child in his academic work and social adjustment within the school setting, was known as the resource room. It was taken over by the MHS Program in September 1966, although Technoma continued to provide some consultative services to the resource room teachers. Five additional resource rooms were established by the MHS Program in September 1966. These rooms were located in Fifth Avenue, Gladstone, Latimer, South, and Westinghouse high schools.

The resource room, while sharing a common purpose with the elementary school adjustment class, functions with somewhat more flexibility. For the most part, students use the room primarily during study hall periods, although they are not restricted to these periods. Students receive specific academic instruction, tutoring, and remedial work. Assignments are received from regular teachers, and frequent communication occurs between resource room teachers and other school personnel regarding current assignments, behavior, and other related topics.

Referral and admission procedures (described later) were established for both resource rooms and adjustment classes. However, these procedures are not rigidly adhered to in the secondary schools where the resource rooms are also used informally, before and after school, and between classes. Some of the students are "self-referrals" who come to the resource room if they are upset, troubled, or on the verge of an emotional outburst. It then becomes the responsibility of the resource room teacher to notify the regular teacher of the student's presence in the room.

The resource room teacher uses a variety of teaching materials, ranging from standard textbooks to special teacher-made materials. The primary emphasis in both the resource rooms and the adjustment classes is educational, although there are remedial, preventive, corrective, and therapeutic aspects as well.[14]

Consultation Conferences. The adjustment class and resource room programs are supported by consultation conferences in the schools. Every two weeks a psychiatrist and a social worker from the MHS staff spend a half-day at each of the participating schools in conference with appropriate personnel. Based on the assumption that teachers can generally identify children who are "different," the conferences are teacher-centered. Teachers are frequently able to supply vital information about the child's learning difficulties, his social behavior, how he and the school adapt to each other, and his family background. Other school personnel knowing the child--the principal, school social worker, psychologist, counselor, school physician, or nurse--share their knowledge or insights with the conference group. Frequently, a two-hour discussion period produces a collection of information which might have taken weeks or months to collect through more traditional methods. If more information is required, the appropriate person in the conference group takes the responsibility of securing it for the next meeting.

One purpose of the consultation conferences is to discuss children referred to the program. (Referrals are made by any school staff member and directed to the principal in the elementary schools and to the Counselor-Coordinator in the secondary schools.) The conference attempts to determine whether the referred child can benefit from assignment to the adjustment class or resource room program or whether he merely needs additional support in his regular class. Conference members decide whether the child is so severely disturbed that the school is perpetuating an undesirable social situation by continuing in an impossible and inappropriate custodial role. An effort is made, when possible, to maintain the disturbed child's placement in some part of the regular school program so that he is not completely separated from the mainstream of school activities.

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[14] Vivien Richman, Stonewall B. Stickney, and George J. Wilson, "Mental Health Services in the Pittsburgh Public Schools," Jour. of the Internatl. Assn. of Pupil Personnel Workers (March 1967), pp. 91-95.

At the end of the school year, the two psychiatrists discovered that, working independently, they had arrived at a common basis for decisions on the disposition of referrals. They agreed that the major determinants in making this decision were the degree of the child's (1) reachability; (2) disability; and (3) containability in his school, community, and family. The interaction and inter-relationships of child-family-school-principal-teacher-community were the bases for decisions in planning for the child.

The conference group also attempts to determine if the disturbed child has elected a friend from among the faculty. If such a relationship exists, the group attempts either to reinforce that relationship or to make it more informed and purposeful. Similarly, if the parents have elected a friend in the school, that relationship is supported. In this way, the MHS staff assisted school personnel in locating, identifying, supporting, and utilizing potential or existing mental health resources in their own schools.

The MHS consulting group interviews the child and his parents only when the information presented at the consultation conference is either puzzling or alarming. During the school year 130 children were seen by the Psychiatrist-Director and by the Consulting Psychiatrist, although 727 children were served by the program. This was an economic utilization of one full-time and one half-time psychiatrist in a large urban school system.

By discussing, reviewing, and planning for the disturbed children in the school, the conference group provides systematic and practical support for the program. The process of joint planning for each of the children is self-correcting because the effectiveness of the plan can be evaluated during the bi-weekly conferences and modified accordingly. The conference also serves as a teaching seminar for participating school personnel.

The diagnostic process of the consultation conferences differs from more orthodox, clinically-oriented staffings or case conferences. The goal of the conferences is to arrive at a psychoeducational diagnosis and specific prescriptive recommendations. The presentation of long, formal, technical reports written in psychiatric or psychological terminology is avoided.

Crisis Consultations. This activity occupies a large proportion of the MHS staff's time. During the 1966-1967 school year almost 400 crisis consultations occurred in 82 schools. Referrals came primarily from principals, but the MHS staff also consulted on cases referred by members of the central administrative staff.

The philosophy, diagnostic approach, and procedures of the crisis consultations are similar to those of the regularly scheduled consultation conferences. For all consultations, an effort is made to invite representatives of community social agencies to participate if either the child or family under discussion is known to them or if it seems likely that the child or family may be referred to them. Juvenile Court, Family and Children's Service, Child Welfare Services, Children's Hospital, Western Psychiatric Institute and Clinic, St. Francis Hospital, and the Department of Public Welfare were among the agencies who sent representatives to the consultations in the past school year.

There were several purposes for inviting these representatives:

1. To ensure closer working relationships
2. To share with other agencies important information which only the school might possess. For example, a child might present acceptable behavior during a one-hour period in a treatment center, but be virtually uncontainable in a classroom.

3. To plan together for the troubled child in deciding which agency should be responsible and in avoiding unilateral actions regarding treatment or management plans
4. To develop or reinforce a pattern of inter-agency action which eliminates unnecessary multiple diagnoses and excessive paper work and provides more effective delivery of services

The most urgent of the crisis consultations were those involving children who had threatened or attempted suicide. The MHS staff assumed that all suicide threats were "serious" until proven otherwise. It is notable that the community has considered juvenile suicide threats "not serious" unless the action taken is successful or nearly so.

The suicidal child and his parent (s) were seen by a MHS psychiatrist and social worker, usually within 24 hours after the referral was received. This type of referral was given first priority. During the 1966-1967 school year, 65 such referrals were made--43 at the secondary school level and 22 at the elementary level. How many suicide threats or attempts occur in the school population other than those referred to the MHS Program is not known. Emergency facilities in the community for dealing with juvenile suicide attempts are grossly inadequate and temporary protective facilities scarce.

Two case histories will illustrate the experience of the MHS Program in trying to deal with suicide attempts and threats in the face of these limitations.

Danny, a 10-year-old Negro boy in a poverty neighborhood, was living with his widowed, alchoholic, 54-year-old mother who was unable to care for herself. He had a history of attempted suicides. After being involved in a fight with another child about a week before Christmas, he was required to bring his mother to school. He appeared in the school yard after having cut his abdomen with a razor blade. School officials took him and his reluctant mother to the hospital where, after a loss of considerable blood, he was given 10 stitches and sent home.

The MHS staff was notified and Danny and his mother were seen the following day. His mother evidenced no alarm or concern. The psychiatrist described Danny as a child "on the brink of psychotic depression or schizophrenia." With the holidays approaching, it was feared that Danny's mother would go on an extended drinking spree, leaving Danny at the mercy of his self-destructive impulses.

Juvenile Court was contacted by a supervisor from the Office of Pupil Services of the Pittsburgh Public Schools. Acting on the advice of the MHS psychiatrist, an attachment was issued to have Danny brought into the Detention Home. He remained there until he was transferred to a temporary shelter operated by Child Welfare Services. Eight months later, in July 1967, Danny was still at the shelter. The prospects of a foster home or other residential placement are dim.

Theresa, a 14-year-old student in a predominantly middle-class high school, was referred to the MHS staff by the school social worker for having threatened suicide. Viewing her situation as intolerable, Theresa had no desire to continue living. Her parents, who were on public assistance, had both been in and out of mental hospitals. Theresa's few clothes were in very poor condition. She lived in a filthy house with five dogs, a cat, and two hamsters. The gas and light had been turned off.

After school, Theresa rushed home to do her homework while there was still daylight. When it got dark, she and her younger brother Richard went to bed to keep warm, while their parents played cards by candlelight. Richard, an elementary-school student, was beginning to show signs of depression, hopelessness, and alienation similar to Theresa's.

The MHS staff initiated a conference involving the people and agencies who had been active with the family. These included the elementary and secondary school social workers; the principal and two teachers from Richard's school; the family's minister; representatives from the Family and Children's Service, who had dealt with the family since 1958; and people from the Department of Public Welfare and Child Welfare Services. The family's history and present circumstances were reviewed. Emergency arrangements were made to restore heat and light in the house. There was a general agreement that both children should be removed from the home and the parents encouraged to enter treatment. However, no residential facilities were available in the community for either child. As an interim measure, the MHS staff was able to secure emergency hospitalization for Theresa at St. Francis Hospital. The school social workers agreed to give both children continued daily support for the rest of the school year. As of July 1967, the entire family was involved in out-patient psychiatric treatment at St. Francis Hospital.

One social phenomenon which was encountered repeatedly during crisis consultations was the situation which the MHS staff referred to as the "squeeze-out." In such cases a family was consciously or unconsciously forcing a child out of the home. Frequently, the child's school behavior became increasingly worse as he tried to get himself put out of the school and, consequently, removed from an untenable home situation. In the past year, several children have put this stragegy into words, as well as practice. The philosophy of the MHS on this issue has been described as follows:

> The dilemma of the child who needs to be thrown out of school brings up two more very lively issues, one the philosophy of diagnosis, the other the chaos of inter-agency communication about troubled children and their families.
>
> As to the first, diagnostic philosophy, one finds that the traditional categories and certainly the refined studies of intra-psychic dynamics, have little relevance when dealing with the 95% of disturbed children who will never receive 'therapy' in the traditional sense, i. e., therapy designed to deal with complexities uncovered by 'clinical' diagnosis diminishing in direct proportion as the pathology of the family and of the school increase.

> The only practical system becomes an ecological system of diagnosis, in which the intra-psychic factors are noted, but are only a part of the complex total diagnosis. The latter resembles a cauliflower more than the neat cucumber slice of clinical diagnosis, because it must include a description of the two ecological niches, the home and the school, in which the child must establish himself and grow. If he is in danger of being excluded from either of these, the child's condition is serious, regardless of his clinical diagnosis. Contrariwise, a child with a psychosis, or brain damage, or some other serious clinical diagnosis may, in our scheme, have a benign condition, if home and school are receiving and containing him, and fostering his growth.[15]

There are several alternatives for action in crisis consultations or regular school consultations:

1. If the child is considered a candidate for the adjustment class or resource room programs, an assignment can be made, either as a placement or on a temporary basis to secure additional functional, diagnostic information about the child. If his school does not contain this special class program, the child may be transferred to a school which does.
2. A recommendation may be made to maintain the child in the regular class program, making available occasional informal use of the adjustment class or resource room. This alternative includes the use of an elected faculty member to work with the child.

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[15] Stickney, p. 18.

3. Changes in the child's placement in his school, transfer to another teacher or to another existing program, or transfer to another school may be recommended.
4. A referral to a community agency such as a hospital, a family case work agency, or a psychiatric clinic may be indicated.
5. The child may be placed on a part-time schedule in order to verify the "squeeze-out" situation, test the workability of the family, or share with the family the responsibility for teaching the child appropriate school behavior.
6. With severely disturbed children, a medical excusal may be given with appropriate recommendations for placement.
7. Some combination of these alternatives may be implemented.

In-Service Education. It was recognized early in the development of the MHS Program that any successful mental health effort in a school system must begin by providing real service to the schools' most urgent problems. Other mental health programs foundered because they were relatively selective, choosing the more "workable" of the difficult children referred to them by the school.

Following the MHS philosophy, all referrals were accepted, including such cases as a family having a 32-year-old record with community social agencies. Early referrals tended to be children who were aggressive, hostile, destructive, and unmanageable and whose problems were the most visible. After some success was demonstrated with these children, less obviously disturbed children, the withdrawn and the fearful, were identified and referred.

It was also recognized by the MHS staff that merely expanding the number of crisis consultations scheduled and extending the number of special class programs would not be effective comprehensive mental health measures. Such efforts, while essential, would for the most part be a matter of "catching casualties." In order to create an effective school mental health program with preventive aspects to meet the growing need of containing and educating emotionally disturbed children, it became increasingly imperative to plan and implement a broad program of in-service education for school personnel.

Such a plan was implemented through the participation of school personnel in the consultation conferences described earlier. In addition, regularly scheduled weekly seminars were conducted during the school year. The participating groups are described in Table 1.

The seminars for the preprimary and kindergarten teachers met after school. This arrangement proved unsatisfactory since the discussion of complex interpersonal relationships is difficult, if not impossible, at the end of a strenuous working day. The three other seminars (elementary instructional supervisors, vice-principals, and the faculty of Wightman Elementary School) met during the school day. At Wightman, teachers were relieved by interested parents for one hour per week so that they could attend the seminars.

TABLE 1

Description of Mental Health Seminar Groups

| Type of Personnel | Number of Participants | Weeks of Duration |
|---|---|---|
| Preprimary Teachers | 12<br>25 | 24<br>12 |
| Kindergarten Teachers | 29 | 15 |
| Elementary Instructional Supervisors | 18 | 9 |
| Vice-principals | 10 | 27 |
| Wightman (Total Faculty) | 21 | 27 |
| Total | 115 | 114 |

The meetings were conducted informally by a MHS psychiatrist and social worker, who avoided imposing an agenda on the groups. The participants were encouraged to provide the content for each meeting, so that their own primary needs would be met. The teachers' seminars were centered, for the most part, on discussions of problem situations which had been encountered. Although the supervisors and the vice-principals occasionally brought up case material for discussion, they were more concerned with broad educational and sociological issues which were imbedded in the school system.

Informal feedback from the participants indicated that they had found the seminars to have real and practical value. It is hoped that released time can be secured so that further in-service education programs can be implemented. The planning of such programs is at the preliminary stage.

Inter-agency Conferences and Other Activities. In addition to the inclusion of appropriate agency representatives in school consultation conferences, the MHS staff participated in, or initiated, many meetings during the year which were designed to improve communication with other agencies. The purpose of some of the meetings was the implementation of joint planning efforts for meeting mental health needs in the community. Several meetings, for example, were scheduled with personnel from Western Psychiatric Institute and Clinic and St. Francis Hospital, both of which are involved in developing community mental health centers. There were frequent contacts with the mental health staff of the Allegheny County Public Schools, the Health and Welfare Association, the Child Welfare Services, The Mental Health Bureau of the Allegheny County Department of Health, and the Pennsylvania Mental Health Association.

The MHS staff also consulted with out-of-town groups who were in the process of establishing mental health programs in their schools. These consultations usually involved a full day or more of observing various components of the MHS Program and discussion with MHS staff.

The Director of the MHS Program is currently a consultant to Carnegie Institute of Technology's program to revise their teacher training curriculum and has made six video-tapes as part of the project. He is also serving as consultant to Project Upward Bound, a program designed to motivate and support talented underachievers. He has appeared several times on WQED, Pittsburgh's educational television station, and has participated on panels or presented papers before such groups as the National Convention of the Council for Exceptional Children, the American Psychiatric Association, the Menninger Clinic, the International Convocation on Children and Adults with Learning Disabilities, the National Association of Mental Health, the New York State Mental Health Association, the South Carolina Mental Health Association, and other state mental health groups around the country.

The Coordinator of the MHS Program was a panel member at the annual Pennsylvania Mental Health Conference. He also presented a report to the Comprehensive Vocational Rehabilitation Planning Project for Pennsylvania. Both he and the MHS Director will be panel members at the International Conference of the Association for Pupil Personnel Workers in the fall of 1967. With the Director and Research Consultant, the Coordinator of the MHS Program has also been invited to present a workshop on mental health at the fall convocation of the Pennsylvania Federation of the Council for Exceptional Children.

Other activities of the MHS staff included the publication of an article describing their program in the Journal of the International Association for Pupil Personnel Workers. Staff members have also delivered between 40 and 50 speeches to local community organizations such as PTA's, settlement houses, and social agencies.

Population Served by the MHS Program. Eli M. Bower's operational definition of the emotionally disturbed child includes the following points:

1. An inability to learn, which cannot be explained by intellectual, sensory, or health factors
2. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers
3. Inappropriate types of behavior or feelings under normal conditions
4. A general pervasive mood of unhappiness or depression
5. A tendency to develop physical symptoms, pains, or fears associated with personal or school problems.[16]

Barbara Bateman's even broader view of "problem" children includes those with reading or communication problems and sensory-motor deficiencies. She classifies these children as having "learning disabilities" which frequently result in disturbed school behavior.[17]

Estimates of the incidence of emotional disturbance among children, according to Bower's definition, average about 10 percent.[18] In 1965, it was estimated that Allegheny County had at least 39,000 emotionally disturbed children.[19]

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[16] "The Emotionally Handicapped Child and the School; An Analysis of Programs and Trends," Exceptional Children, XXVI (1959), 182-188.

[17] "Learning Disabilities," Exceptional Children, XXXI (1964), 166-167.

[18] The Early Identification of Emotionally Handicapped Children in School, (Springfield, Illinois, 1960), p. 11.

Criteria for Eligibility. Standards set by the Department of Public Instruction and adopted by the State Council of Education on September 20, 1961 have served as general guidelines for admission to the MHS Program:

1. Children whose social and/or emotional problems are so severe that, in their regular classrooms, they are prevented from functioning normally or from making educational progress at a rate and to an extent commensurate with their abilities
2. Children whose serious emotional problems necessitate their working with specially qualified teachers who can give them individual attention and assistance
    a. Children whose behavior may be a destructive influence on other children
    b. Children whose environment is disorganized or inadequate
    c. Children who are severely disturbed and unresponsive to the usual educational opportunities
    d. Children whose behavior is organically determined but who have the potential to participate in group learning experiences

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[19] Report of the Committee on Services for Emotionally Disturbed Children, p. B-5.

with specially qualified teachers in a protective school environment

Description of Population Served. From September 1966 to June 1967, 727 children from 6 to 19 years of age were referred to the program. Of these, 75 were admitted to the adjustment class program in the elementary schools, and 225 were admitted to the resource room program in the secondary schools. Thus, a total of 300 children participated in the MHS special class program. For the remaining 427 referrals, the MHS staff recommended adjustments which the school could make, provided support to the children in regular class placements, or referred them to community agencies. A limited number (12) of these children were excluded from school because of the severity of their disturbances.

Tables 2 and 3 present a breakdown of participants in the special class programs by sex and age.

TABLE 2*

Composition of MHS Special Class Programs by Sex

| Level | Boys | Girls |
|---|---|---|
| Elementary Schools | 82% | 18% |
| Secondary Schools | 63% | 37% |

*The data reported in Tables 2, 3, and 4 are as of Feb. 28, 1967.

TABLE 3

Composition of MHS Special Class Programs by Age*

| Age | Percent | Age | Percent |
|---|---|---|---|
| 19 | 1 | 14 | 1 |
| 18 | 2 | 13 | 1 |
| 17 | 7 | 12 | 8 |
| 16 | 13 | 11 | 15 |
| 15 | 24 | 10 | 19 |
| 14 | 28 | 9 | 31 |
| 13 | 23 | 8 | 8 |
| 12 | 2 | 7 | 8 |
|  |  | 6 | 5 |

* Secondary school age range--12 to 18 years
Elementary school age range--6 to 14 years

As is indicated in Table 2, the percentage of boys in the program drops from 82 percent in the elementary school to 63 percent in the secondary school. In Table 3, it should be noted that although the age range in the secondary school program is from 12 to 19 years, 75 percent of the children are from 13 to 15 years old. Although the age range in the elementary school program is from 6 to 14 years, 65 percent of the children are from 9 to 11years old.

In analyzing the reasons for referral, five categories of behavior emerged in the secondary schools and four in the elementary schools. The percentage of participants referred for each of these reasons is presented in Table 4.

## TABLE 4

### Composition of MHS Special Class Programs by Reasons for Referral

| Secondary Schools | Percent | Elementary Schools | Percent |
|---|---|---|---|
| Aggressive | 52 | Aggressive | 42 |
| Withdrawn | 38 | Withdrawn | 24 |
| Pre-delinquent | 3 | PMD and MBD | 31 |
| Immature | 2 | Miscellaneous | 3 |
| Pre-schizophrenic, miscellaneous | 5 | | |

Aggressive behavior includes hostility, disruption, rebellion toward authority, lack of self-control, and hyperactivity. Withdrawn behavior includes fearfulness, depression, confusion, and under-achievement. It is interesting to note that, among the reasons for referral, perceptual-motor dysfunction (PMD) and suspected minimal brain damage (MBD) were reported for 31 percent of the elementary school population, but not at all in the secondary schools. In both elementary and secondary schools the greatest percentages of children were aggressive.

Because the original funding for the classes came from OEO, the six elementary classes and the six secondary classes were located in high-risk, low-income school districts. Thus, the children in the MHS special class program were relatively homogeneous in socioeconomic level. One additional adjustment class, located in a middle-class school district, was in existence before the inception of the MHS Program. Since it is under the direction of the Section on Special Education, it will not be described in this report.

Description of Staff. The present staff consists of the following members:

1. A Psychiatrist-Director who provides leadership for the program, conducts in-service programs for school personnel, participates in the evaluation of candidates for the program, provides crisis consultations and psychiatric first aid in emergencies, plans and develops program activities, and performs administrative duties
2. A half-time Psychiatric Consultant who performs similar activities in consultation, evaluation, psychiatric first aid, and in-service education
3. A Coordinator who schedules the varied activities of the program, supervises the social workers, handles emergencies, communicates with community agencies, and performs administrative duties
4. Three social workers who assist in evaluating children for placement in the MHS Program, define and record issues, perform case work functions directly or through the school social worker, assist the psychiatrist in evaluating children in the crisis consultations, and conduct related activities
5. Twelve teachers for the adjustment class and resource room programs and eight classroom aides who provide a suitable

climate and educational help for the children in the program. The teachers communicate with regular teachers in the schools and meet regularly with the MHS staff, activities which are especially important because of the acute scarcity of trained mental health professionals

## Statement of the Problem

### Program Description

In order to determine whether or not the MHS Program is operating as it was originally conceived, it was necessary to gather additional descriptive information. Although the primary focus of the study was on the special class component of the program, this should not imply that the other components are less important. The special classes are simply the most visible segment of the program and, therefore, the most accessible to detailed examination.

Specifically, the following questions were raised:

1. How were the adjustment class and resource room programs used?
2. What were the principal activities in these classes?
3. Which lines of communication were developed and used?
4. What problems were most frequently presented?
5. What was the educational history of the children in the special class program?

### Program Effects

An exploratory effort was made to assess and evaluate the effects of the MHS Program--both on student participants and on school personnel. To this end answers were sought for the following specific questions:

1. Were there changes in the achievement, performance, school citizenship, and attendance and tardiness of the children in the adjustment classes and resource rooms?
2. Were there changes in the attitudes and information about mental health among the school personnel who had had some degree of contact with the MHS Program?
3. How was the program perceived and evaluated by the principals of the schools in which the adjustment classes and resource rooms were located?

## Method

### Program Description

In September 1966, efforts were begun to design data collection forms to be used by the adjustment class and resource room teachers and by the MHS social workers. These instruments are included in Appendix A.

The MHS-2 form was developed to determine the problem most frequently presented, the subjects most frequently tutored, and the proportion of time spent in various activities in the resource room. It was completed by all resource room teachers every week for each child in the program. This was particularly important for obtaining information about the resource room which, because of its emphasis on one-to-one tutoring and remedial work and its flexibility of use, was not amenable to observation. A similar form, the MHS-2a, was designed to collect descriptive information about the adjustment class program. It was filled out monthly by the adjustment class teachers for each child in the program. A random sample of the MHS-2 and the MHS-2a was drawn and analyzed.

Other data collection forms included the MHS-3, completed by the adjustment class and resource room teachers to provide a record of the frequency of their contacts with other personnel, and the MHS-5, submitted by the MHS social workers for the same purpose. The Student Data Cards (see Appendix B) were used to collect information about failure and citizenship marks in grades 1, 2, and 3 for the students who participated in the adjustment class and resource room programs. This information was gathered from school records in June and July of 1967.

Program Effects

The following information for the 1965-1966 and the 1966-1967 school years was compiled for each of the 300 students who had been in the adjustment class and resource room programs: (1) achievement test scores in reading and arithmetic, (2) report card grades in reading and arithmetic, (3) citizenship grades, and (4) absence and tardiness records. Data were collected in July 1967 from school records, using the Student Data Cards (see Appendix B).

A teacher rating scale (see Appendix C) was constructed and administered to all teachers (regular, adjustment class, and resource room) who had taught any one of the students enrolled in the special class program during the 1966-1967 school year. Teachers were instructed to evaluate changes in the performance and behavior of these students by ranking them on a four point scale: marked improvement, some improvement, no improvement, or deterioration. A total of 1392 ratings were secured and analyzed.

A questionnaire was developed to measure attitudes toward mental health in a school context, mental health concepts, and information about the MHS Program. This information was pre-tested on two sections of graduate students at the University of Pittsburgh. It was administered in October 1966 to 654 school personnel in the 12 schools where there were adjustment classes and resource rooms and the regularly scheduled consultation conferences. Post-test scores were obtained by administering the questionnaire again in May 1967. It w[illegible] also administered to the faculties of two secondary and three elementary schools in similar socioeconomic areas which had not received extensive services from the MHS Program.

In order to determine how the program was perceived and evaluated by the principals of the twelve schools which had adjustment classes and resource rooms, an interview schedule was devised (see Appendix D). Interviews were conducted by the Research Consultant during February and March of 1967.

## Results

### Program Description

As is indicated in Table 5, the problem most frequently presented by resource room students in all but one school was "personal crisis." In that school "relations with teachers" was the most frequently presented. No single problem emerged as predominant, demonstrating some heterogeneity in this aspect of the student population.

TABLE 5

Percentage of Problems Presented by Resource Room Students

| Problem | Schools | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Personal crisis | 17 | 30 | 29 | 18 | 22 | 36 |
| Relations with peers | 14 | 11 | 13 | 16 | 19 | 13 |
| Feelings about self | 14 | 6 | 13 | 18 | 13 | 1 |
| Relations with teachers | 13 | 9 | 3 | 8 | 34 | 9 |
| School crisis | 11 | 6 | 3 | 13 | 4 | 9 |
| Depression | 11 | 10 | 13 | 8 | 3 | 10 |
| Other school problems | 8 | 22 | 18 | 7 | 5 | 21 |
| Relations with family | 12 | 6 | 8 | 12 | - | 1 |

Table 6 shows that mathematics was the most frequently tutored subject in all but one school, a school where the resource room teacher professed some discomfort with that subject. Of the other activities in the resource room, discussion and conversation on a one-to-one basis occupied the highest percentage of time as is shown in Table 7.

## TABLE 6

Frequency of Subjects Tutored in the Resource Room Program

| Subject | Schools | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Mathematics | 27 | 33 | 1 | 14 | 88 | 19 |
| English | 1 | 28 | 12 | - | 45 | 6 |
| Social studies | - | - | 3 | 6 | - | 10 |
| Other subjects | 18 | 5 | 3 | 2 | 40 | 5 |

## TABLE 7

Percentage of Time Spent on Activities in the Resource Room Program

| Activity | Schools | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Discussion-conversation | 32 | 48 | 41 | 40 | 30 | 40 |
| Supervised study | 30 | 28 | 23 | 18 | 20 | 17 |
| Limited conversation | 22 | 12 | 15 | 18 | 30 | 20 |
| Inquiry about program | 16 | 12 | 21 | 24 | 20 | 23 |

Although most of the students used the program on a regularly scheduled basis, considerable informal activity took place--unscheduled visits to the resource room, contacts with the resource room teacher in the halls, and drop-in visits before and after school. The variations revealed in Table 8 may be attributed to differences in school organization and climate, location and accessibility of the resource room, and teacher style.

## TABLE 8

Percentage of Students' Use of the Resource Room Program

| Use | Schools 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Scheduled visit | 32 | 57 | 26 | 46 | 86 | 70 |
| Unscheduled visit | 28 | 19 | 35 | 37 | 14 | 22 |
| Contact in hall | 20 | 12 | 1 | 19 | - | 4 |
| Visit before/after school | 20 | 12 | 38 | 8 | - | 4 |

For the adjustment class program, information on the percentage of time spent on various activities is given in Table 9.

## TABLE 9

Percentage of Time Spent on Activities in the Adjustment Class Program

| Activity | Schools 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Reading | 17 | 20 | 18 | 25 | 17 | - |
| Arithmetic | 13 | 20 | 11 | 20 | 14 | - |
| Language arts | 13 | 17 | 8 | 24 | 13 | - |
| Social studies | 7 | 4 | 1 | 2 | 1 | - |
| Science | 12 | 2 | 5 | 6 | 1 | - |
| Other subjects | 13 | -- | 12 | 1 | 11 | - |
| Perceptual-motor training | -- | 10 | 8 | 3 | 21 | - |
| Group activity | -- | 12 | 15 | 9 | 14 | - |
| Creative activity | -- | 12 | 14 | 9 | 8 | - |
| Other activity | 25 | 3 | 8 | 1 | -- | - |

Although one adjustment class teacher submitted no data, the other classes furnished a somewhat consistent pattern of activity. Instruction in reading exceeded instruction in arithmetic, unlike the resource room program in which mathematics was the most frequently tutored subject. The variability of the percentage of time spent in perceptual-motor training could be explained by the fact that the teacher in School 5 had been trained in a university which emphasized that orientation, and the teacher in School 2 had taken summer courses there. No striking differences in the program were revealed, despite differences in the training and experience of the teachers, teacher style, and population. The teacher in School 1 was inexperienced and untrained and left the program at the end of the school year. The teacher in School 2 left the program at the end of the school year in order to study for an advanced degree.

Information on the adjustment class and resource room teachers' contacts with other personnel is given in Table 10.

## TABLE 10

### Frequency of Adjustment Class and Resource Room Teachers' Contacts with School Personnel

| Category of School Personnel | Adjustment Class Teachers | | | | | | Resource Room Teachers | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| Coordinator | - | - | - | - | - | - | 101 | 186 | 118 | 76 | 228 | 11 |
| Principal | 49 | 131 | 49 | 35 | 17 | - | 77 | 180 | 9 | 19 | 168 | 10 |
| Vice-principal | - | - | - | - | 8 | - | 84 | 251 | 57 | 36 | - | 5 |
| Counselor | - | 47 | - | - | - | - | 68 | 94 | 16 | 36 | - | - |
| School social worker | 14 | 21 | 6 | 30 | 17 | - | 121 | 76 | 75 | 20 | 83 | 2 |
| Psychologist | 4 | 6 | 4 | 2 | 17 | - | 5 | 49 | 11 | 4 | 13 | - |
| MHS staff | 8 | 28 | 12 | 16 | 17 | - | 8 | 36 | 42 | 22 | 140 | 2 |
| Technoma | - | - | - | - | - | - | 12 | 55 | 202 | 15 | 45 | 8 |
| Regular teacher | - | 30 | 39 | 35 | - | - | 117 | 375 | 454 | 76 | 1381 | 9 |
| Agency | - | - | 3 | 2 | - | - | - | 12 | 8 | 1 | 4 | - |
| Doctor or nurse | - | 14 | 7 | 3 | - | - | 83 | 6 | 22 | 9 | 104 | - |
| Observation | - | 3 | 7 | - | - | - | 11 | 22 | - | - | 1 | - |
| Parent | - | 22 | 29 | 30 | 1 | - | - | 28 | 1 | 7 | - | - |
| Other | - | 11 | 24 | 32 | - | - | - | 7 | 70 | 6 | 1 | - |

One adjustment class teacher failed to submit any data, and two submitted only partial data. Despite differences between teachers in systematically recording these contacts, a revealing profile of activity and communication emerged.

In the adjustment class program, the findings confirm the important role played by the principal. Adjustment class teachers also had a considerable amount of contact with regular teachers, the MHS staff, school social workers, and parents.

The pattern of communication in the resource room is similar in general contours to that of the adjustment class with some expected differences. Reflecting a more complex program which involves a larger number of students and school personnel, the frequency of contact is much greater than in the elementary school program. Differences in administrative style and assignments are evident in a greater frequency of contact with the Coordinator-Counselor and less frequency of contact with the principal and the vice-principal. The most frequent contacts were made with regular classroom teachers. As in the adjustment class program, the resource room teachers had a considerable amount of contact with the MHS staff and the school social workers. Technoma personnel served in a consultative relationship with the resource room teachers. There were two secondary schools in which a school physician and a school nurse were actively involved in consultation with the resource room program.

Table 11 presents more information about these contacts by showing their distribution across the ten months of the 1966-1967 school year.

TABLE 11

Monthly Frequency of Adjustment Class and Resource Room Teachers' Contacts with School Personnel

| Category of School Personnel | Sept | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
|---|---|---|---|---|---|---|---|---|---|---|
| Coordinator | 42 | 33 | 103 | 113 | 153 | 103 | 63 | 87 | 65 | 6 |
| Principal | 28 | 32 | 81 | 80 | 139 | 80 | 71 | 102 | 53 | 18 |
| Vice-principal | - | 15 | 31 | 75 | 118 | 66 | 59 | 55 | 27 | - |
| Counselor | 3 | 6 | 28 | 49 | 66 | 36 | 27 | 28 | 19 | 3 |
| School social worker | 9 | 23 | 44 | 53 | 112 | 63 | 39 | 56 | 63 | 3 |
| Psychologist | 4 | 7 | 16 | 21 | 16 | 13 | 10 | 22 | 5 | 1 |
| MHS Staff | 6 | 27 | 28 | 34 | 49 | 43 | 35 | 49 | 42 | 18 |
| Technoma | 5 | 57 | 23 | 47 | 51 | 49 | 28 | 40 | 35 | 2 |
| Regular teacher | 14 | 198 | 241 | 296 | 411 | 335 | 298 | 342 | 319 | 136 |
| Agency | - | - | 3 | - | 5 | 6 | 12 | 2 | 2 | - |
| Doctor or nurse | 2 | 21 | 25 | 16 | 43 | 37 | 11 | 27 | 60 | 9 |
| Observation | - | 1 | 10 | 4 | 7 | 3 | 4 | 1 | 14 | - |
| Parent | 2 | 2 | 14 | 16 | 26 | 12 | 16 | 20 | 7 | 4 |
| Other | - | 12 | 11 | 22 | 24 | 15 | 26 | 26 | 14 | 3 |

As is shown in Table 11, activity rose sharply in November and reached a peak in December and January. A second rise in activity, though less pronounced, occurred in April. This finding tends to confirm the hypothesis of the MHS staff that mental health crises increase in frequency before and after the Christmas holidays and again in the early spring.

Table 12 presents the MHS social workers' average number of monthly contacts with other personnel.

TABLE 12

Average Monthly Frequency of MHS Social Workers' Contacts with Other Personnel

| Category of Personnel | Frequency |
|---|---|
| MHS staff | 24.0 |
| School social worker | 20.0 |
| Meetings | 18.5 |
| Other agencies | 16.4 |
| Principals | 16.0 |
| Coordinator | 13.0 |
| Special class teacher | 10.7 |
| Counselor | 9.3 |
| Parent | 9.0 |
| Psychologist | 8.6 |
| Vice-principal | 7.8 |
| Children | 6.5 |
| Regular teacher | 5.8 |
| Other | 4.4 |
| Medical personnel | 2.8 |
| Technoma | 2.8 |

Aside from communication with the MHS staff, the high frequency of contact with the school social workers tends to confirm the consultative relationship which is assumed in the MHS Program. The data generally seem to substantiate the expected direction of the activities of the MHS social workers.

Table 13 presents the percentage of students in the special class programs who had repeated the first, second, or third grade.

### TABLE 13

Percentage of Students in the Resource Rooms and Adjustment Classes Who Had Repeated Grades 1, 2, or 3

| Resource Room* School | Percentage of Students | Adjustment Class* School | Percentage of Students |
|---|---|---|---|
| 1 | 36 | 1 | 22 |
| 2 | 64 | 2 | -- |
| 3 | 64 | 3 | -- |
| 4 | 89 | 4 | 43 |
| 5 | 50 | 5 | 30 |
| 6 | 42 | 6 | 50 |
| Mean percent | 57 | Mean percent | 39 |

*N = 225 *N = 75

Percentages for the adjustment classes appear to be lower than those for the resource rooms, but the adjustment class data were incomplete and also reflected a smaller population than did the resource room data. Apparently a considerable proportion of the children in the special class program had been demonstrating serious learning problems as early as the primary grades. This was further substantiated by an examination of their citizenship grades in the first three grades of school. Information on this subject is presented in Table 14.

## TABLE 14

Average Number of Citizenship Checks for Students in the MHS Special Class Program

| Resource Room* School | Number | Adjustment Class* School | Number |
|---|---|---|---|
| 1 | 9.4 | 1 | 12.5 |
| 2 | 3.8 | 2 | --- |
| 3 | 10.0 | 3 | 9.7 |
| 4 | 4.7 | 4 | 12.6 |
| 5 | 11.3 | 5 | 20.0 |
| 6 | 5.0 | 6 | 8.4 |

*N = 225 *N = 75

A check mark in citizenship on the report card indicates a need for improvement. Therefore, the higher the number of check marks, the poorer is the student's conduct and behavior. In determining citizenship the teacher rates the student on whether he is courteous, is kind, shows self-control, gets along with others, respects regulations, pays attention, follows directions, works neatly, uses time and materials wisely, accepts responsibility, keeps neat and clean, has good sleep and other habits, and follows safety rules. All the children in the adjustment classes or resource rooms had poor citizenship marks in grades 1, 2, or 3. The average number of check marks received was 9.7.

### Program Effects

The analysis of student data on achievement, report card grades, citizenship and absence and tardiness and the analysis of the pre- and post-test scores of the questionnaire administered to school personnel did not show statistically significant differences.

The results of the teachers' ratings of students are recorded in Table 15.

### TABLE 15

Percentage of Children in the Adjustment Class and Resource Room Programs Exhibiting Change as Rated by Teachers

| Item | (1) Marked Improvement | (2) Some Improvement | (3) (1) and (2) combined | (4) No improvement | (5) Deterioration |
|---|---|---|---|---|---|
| Relationship with other children | 15 | 54 | 69 | 24 | 7 |
| Relationship with authority | 19 | 50 | 69 | 22 | 9 |
| Participation in class activities | 15 | 49 | 64 | 26 | 10 |
| General work and study habits | 13 | 46 | 59 | 31 | 11 |
| Following directions | 14 | 49 | 63 | 29 | 9 |
| Paying attention | 14 | 48 | 62 | 27 | 10 |
| Pride in accomplishment | 17 | 45 | 62 | 29 | 9 |
| Conformity to school rules | 14 | 50 | 64 | 26 | 11 |

Because each student was rated by all of his teachers, regular and special, full-time students in the adjustment classes and resource rooms may have had only one rating, while part-time students may have been rated by several teachers. The total number of ratings obtained was

1392. Marked improvement was indicated in 13 to 19 percent of the ratings, occurring primarily in the areas of "relationship with authority" and "pride in accomplishment." Between 7 and 11 percent of the ratings indicated "deterioration" of behavior.

In examining column 3, a combination of columns 1 and 2 which indicates some degree of positive change in behavior, "relationship with other children" and "relationship with authority" showed the highest percentage of improvement (69 percent). "Conformity to school rules" and "participation in class activities" showed the next highest percentage of improvement (64 percent).

Responses of the principals to the oral interviews are summarized in the following pages.

Question 1: What do you expect the MHS Program to accomplish?

The principals felt that the program would identify and evaluate emotionally disturbed children, help them to make adjustments to school, and help them learn how to learn. The program would provide new alternatives for handling these children which would permit regular teachers to attend to the needs of their other children and relieve the school of the inappropriate custody of severely disturbed children. Thus, the school would be able to continue its normal functions, and disturbed children would be assisted in returning to regular classes. Other expected benefits were improved teacher morale, an improved climate in the school, an increase in the school's holding power, and a reduced suspension rate.

Question 2: In general, how do you think the MHS Program is functioning?

Principals stated that the program was going well, with procedures operating smoothly and the program serving its intended purpose. They remarked that the program had demonstrated some success in educating disturbed children and returning them to regular classes and that teacher morale had improved.

Question 3: In what ways have you been able to use the program as a resource?

The principals stated that the program was useful as a preventive measure for seventh- and eighth-grade students in a junior-senior high school. It provided a resource for serving temporarily disturbed children, and it offered a safe place for ventilation. It had been valuable in the assessment and evaluation of children referred for service, permitting closer observation of behavior. The flexibility of the program permitted short-term, unofficial, temporary placements which were of value to the whole school.

Question 4: What do you think is the strongest component of the program? The weakest?

The strongest components of the MHS Program were the special class teachers and the psychiatric consultation and on-going support provided to the school. Principals emphasized that the program provided a place that was not stigmatized and a person (the special teacher) who had the time and the skills to work in depth with emotionally disturbed children. There was an opportunity for individual attention, with limits and structure. The program was not punitive. The approach of the MHS staff was considered to be very practical, and showed an understanding of the problems faced by the schools. Principals felt that the consultation conferences were profitably utilized as training sessions for school personnel who attended and participated. The flexibility of the program was recognized as a strength, as was the fact that emotionally disturbed children were maintained, as much as possible, in the mainstream of activity in the school.

The weakest aspect, it was felt, was the program's inadequate size. Further, it was believed that the Counselor-Coordinator in the secondary schools had insufficient time to perform his duties associated with the program, in addition to his regular work as Counselor. Inadequate or improper space for the adjustment class or resource room was another problem mentioned. The absence or scarcity of treatment facilities for children in the community left severely disturbed children in the school by default. One principal expressed the view that it was impossible, or at least undesirable, to "mix mental health and education" and that an out-patient psychiatric facility would be more efficacious than the MHS Program.

Question 5: Do you think there is sufficient communication between the adjustment class or resource room teacher and the regular teachers? Do regular teachers attend the consultation conferences?

Nine of the 12 principals believe that communication had been excellent and that regular teachers had been attending the conferences. Of the remaining three, one principal attributed poor communication to the fact that the resource room was located in another building, another took the position that "the less a regular teacher knew about a child's social history, etc., the better," and the third said that poor communication was the product of an inexperienced teacher.

Question 6: What, if anything, would you like to change in the program?

The high school principals requested additional counselor time to relieve the counselor who had the responsibility of acting as coordinator of the MHS Program in their schools. It was felt that substitute teachers would be helpful in relieving regular teachers for attendance at consultation conferences. There were strong recommendations for the expansion and extension of the program. One principal requested the installation of a one-way mirror so that the special class could be observed.

Another principal made the following recommendations:

1. A new program for children with perceptual-motor dysfunctions--educational, remedial, and possibly experimental
2. The development of, and experimentation with, new educational materials for the instruction of emotionally disturbed children

3. A training program for adjustment class aides and an extension of training for the adjustment class teachers

Question 7: Have you observed any changes in the behavior of the children who are in the adjustment class or resource room?

Most secondary principals felt that it was too early in the development of the program to see much change. Elementary principals reported considerable improvement in the children's school behavior and a decrease in referrals to the principal's office for disciplinary action.

Question 8: How is the referral and screening procedure functioning?

All of the principals reported that the referral and screening procedures were working smoothly and satisfactorily. No changes were recommended.

Question 9: Do you think that the program can effectively serve a cluster of schools?

Two of the elementary school principals reported that almost all of the children referred to the program came from outside their schools. It was noted that these schools had been served by a mental health team for about a year before the establishment of the adjustment class and the faculties had participated in a program of in-service education. Apparently they were able to handle their own disturbed children, possibly as a result of that training. The other principals expressed willingness to have the adjustment class and resource room program serve a group of schools, but they felt this was essentially unrealistic.

They believed that each school needed, and should have, its own adjustment class or resource room.

## Discussion and Conclusions

The descriptive data which were collected yielded a picture of the program as it actually operated. The resource room data revealed a high degree of flexibility in the use of the program. The unscheduled visits, the contacts in the halls, and the visits before and after school hours confirmed the assumption that the program would serve the "self-referrals" as well as those officially assigned to the program.

Although "personal crisis" and "relations with teachers" were the most frequently presented problems, the resource room program was able to deal with students whose problems were distributed across six other categories, again demonstrating the flexibility and versatility of the program.

Descriptive data from the adjustment classes revealed a consistent pattern of activity resembling that of an academically structured self-contained elementary school program. The addition, late in the 1966-1967 school year, of a special education instructional supervisor should contribute to the continued stabilization and between-class consistency of the program during the 1967-1968 school year.

Thirty-one percent (or almost a third) of the children in the adjustment classes were referred because of suspected perceptual-motor dysfunction or minimal brain damage. Specific remedial training was provided by those teachers who had been trained in perceptual-motor development. In order to further investigate this aspect of the findings, it was decided that, beginning in October 1967, a part-time perceptual-motor development consultant would work with the MHS Program. At the outset, he will have three major purposes:

1. To diagnose, screen, and evaluate all the children in the adjustment class program
2. To arrive at a more definitive estimate of the incidence of perceptual-motor deficits in the adjustment class population
3. To train adjustment class teachers in remedial techniques which will become a part of the classroom program

Patterns of communication which emerged from the data confirmed the central role of the principal in the elementary schools and of the Counselor-Coordinator in the secondary schools. The high frequency of contact between the special class teachers and the regular teachers substantiated the degree of intra-faculty communication necessary to the functioning of the program. The activities of the MHS social workers, represented in part by their contacts with other personnel, demonstrated a high degree of communication and consultation as had been expected. Much of their activity occurred through meetings and conferences with school social workers, other agencies, the principal, the Counselor-Coordinator, and the special class teacher.

Although there were no statistically significant differences in the student data collected and analyzed, several factors must be considered in interpreting these findings. It was discovered that approximately 57 percent of the students in the resource room program and 39 percent of those in the adjustment class program had failed and repeated first, second, or third grade. The children in the adjustment classes and the resource rooms had received an average number of 9.7 citizenship marks in grades 1, 2, or 3. These findings indicate that a sizable proportion of these children had demonstrated school problems which were identified as long as seven, eight, or nine years ago.

Children with a history of school failure and "problem" behavior will not only be academically retarded, but also are likely to possess strong negative feelings about school and school activities. Their academic achievement and performance are not amenable to rapid or dramatic change. For some children, improved ability merely to maintain themselves in a classroom situation may be viewed as marked improvement. Visible behavior changes may be assigned diverse values. Aggressive behavior, for example, may be regarded in a mental health context as a sign of positive growth in a child who has been fearful and withdrawn and yet perceived by a regular teacher as wholly undesirable.

There are also intervening variables which are beyond the control or influence of the MHS Program: family situation, treatment by other social agencies, school climate, teacher personality, community factors, and deprivations (material and/or emotional). The children included in this study frequently were delegates from disturbed or disorganized families. For some children, the intervention of the MHS Program may be a critical turning point toward adjustment from what has been a disastrous school career. For others, who may already be severely damaged it may only represent a pause or a slowing-down of a deterioration which may well be irreversible.

Another consideration is the fact that the length of the children's participation in the program varied from ten months to as little as two months, on either a full-time or a part-time basis. It is unrealistic to expect that the single intervention of a mental health program would, in a relatively short period of time, be able to neutralize, counteract, or reverse the influence of all the variables mentioned. A longitudinal study covering a larger sample of time would be required to determine the effects of the special class program.

It may well be that measurements of isolated aspects of the total child, such as reading achievement or attendance, do not adequately represent important changes which may take place. A longitudinal study may need to take a more global approach or employ more sophisticated and refined measures.

The absence of statistically significant differences in the questionnaires used to assess attitudes of school personnel toward mental health may be the result of an instrument that is not sufficiently discriminant or sensitive to change. It also may be premature to expect major attitudinal changes after a relatively short period of time and limited engagement with school personnel.

In view of the complexities involved in educating emotionally disturbed and socially maladjusted children--educational, sociological, physiological, developmental, and psychological--it is encouraging to examine the results of the teachers' rating scale. Of the 1392 ratings secured from special and regular teachers, 69 percent showed improvement in "relationship with other children" and "relationship with authority." Sixty-four percent showed improvement in "participation in class activities" and "conformity to school rules."

These positive findings were corroborated by the responses of the principals whose schools had the adjustment class and resource room programs. They reported a decrease in the number of referrals to the office for disciplinary action and an increase in teacher morale. Their major criticism of the program was its inadequate size. Almost all of them perceived the special class component of the MHS Program and the supporting consultation conferences as highly desirable and effective in meeting the urgent mental health needs in their schools.

The findings presented in this report demonstrate the kinds of success the MHS Program has achieved. The MHS staff has provided services to large numbers of disturbed children without developing long waiting lists. The children in the special classes have begun, according to their teachers, to demonstrate some improvement in their school behavior. In-service education of school personnel has begun and will continue. Principals have welcomed this addition to the existing array of ancillary services to their schools. The role of the school in dealing with emotionally disturbed and socially maladjusted children has been clarified, and the existence of serious gaps in mental health services in the community has been identified or confirmed. Through the vision and energy of the Maurice Falk Medical Fund and the Pittsburgh Board of Public Education, a promising beginning has been made toward meeting the mental health needs of students. At least another year, or more, of operation and evaluation will be required to provide more definitive evidence of the effects of the MHS Program.

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# APPENDICES

# APPENDIX A

MHS 2
9/66

Pittsburgh
Public
Schools

OFFICE OF SCHOOL SERVICES
DIVISION OF MENTAL HEALTH SERVICES

WEEKLY SERVICE REPORT--RESOURCE ROOM

School____________________

Teacher____________________

Pupil's Name____________________

Week of____________________

| | | | | | | Impressions of Student Behavior |
|---|---|---|---|---|---|---|
| Tutoring in__________ | | | | | | |
| School problem: | | | | | | |
| Test | | | | | | |
| Teacher relationship | | | | | | |
| Homework | | | | | | |
| Learning difficulty | | | | | | |
| Other | | | | | | |
| Casual inquiry | | | | | | |
| General conversation | | | | | | |
| Limited conversation, guarded | | | | | | |
| Personal problems: | | | | | | |
| Relation with peers | | | | | | |
| Relation with family | | | | | | |
| Feelings about self | | | | | | |
| Fears | | | | | | |
| Depression | | | | | | |
| Other | | | | | | |
| Supervised study | | | | | | |
| Crisis | | | | | | |
| School | | | | | | |
| Home | | | | | | |
| Personal | | | | | | |
| Other | | | | | | |
| Scheduled visit | | | | | | |
| Unscheduled visit | | | | | | |
| Contact in hall | | | | | | |
| Visit before/after school | | | | | | |
| Time: (minutes) | | | | | | |

MHS 2A
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Pittsburgh
Public
Schools

OFFICE OF SCHOOL SERVICES
DIVISION OF MENTAL HEALTH SERVICES

## MONTHLY SERVICE REPORT--ADJUSTMENT CLASS

Pupil's Name______________________ School______________________

Month of______________________ Teacher______________________

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dates: | | | | | | | | | | | | | | | | | | | |
| **Tutoring in:** | | | | | | | | | | | | | | | | | | | |
| Reading | | | | | | | | | | | | | | | | | | | |
| Arithmetic | | | | | | | | | | | | | | | | | | | |
| Language | | | | | | | | | | | | | | | | | | | |
| Social Studies | | | | | | | | | | | | | | | | | | | |
| Science | | | | | | | | | | | | | | | | | | | |
| Other ______ | | | | | | | | | | | | | | | | | | | |
| Other ______ | | | | | | | | | | | | | | | | | | | |
| Perceptual-motor work | | | | | | | | | | | | | | | | | | | |
| Other activities: | | | | | | | | | | | | | | | | | | | |
| Group ______ | | | | | | | | | | | | | | | | | | | |
| Creative ______ | | | | | | | | | | | | | | | | | | | |
| Other ______ | | | | | | | | | | | | | | | | | | | |
| Number of period in adjustment class | | | | | | | | | | | | | | | | | | | |

Impressions of behavior:

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Pittsburgh
Public
Schools

## OFFICE OF SCHOOL SERVICES
## DIVISION OF MENTAL HEALTH SERVICES

### MONTHLY REPORT OF CONTACTS

Month______________________________

School__________________________________

Teacher_________________________________

Contact with:

| Dates | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coordinator | | | | | | | | | | | | | | | | | | | | |
| Principal | | | | | | | | | | | | | | | | | | | | |
| Vice - principal | | | | | | | | | | | | | | | | | | | | |
| Counselor | | | | | | | | | | | | | | | | | | | | |
| Home and School Visitor | | | | | | | | | | | | | | | | | | | | |
| Psychologist | | | | | | | | | | | | | | | | | | | | |
| MHS staff | | | | | | | | | | | | | | | | | | | | |
| Technoma | | | | | | | | | | | | | | | | | | | | |
| Teacher | | | | | | | | | | | | | | | | | | | | |
| Other agency | | | | | | | | | | | | | | | | | | | | |
| Doctor or nurse | | | | | | | | | | | | | | | | | | | | |
| Observation | | | | | | | | | | | | | | | | | | | | |
| Parent or guardian | | | | | | | | | | | | | | | | | | | | |
| Other:______________ | | | | | | | | | | | | | | | | | | | | |
| Other:______________ | | | | | | | | | | | | | | | | | | | | |

MHS-5
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Pittsburgh
Public
Schools

## OFFICE OF SCHOOL SERVICES
## DIVISION OF MENTAL HEALTH SERVICES

## MONTHLY REPORT OF CONTACTS

Month ______________________ Social Worker ______________________

| Contact with: | Total |
|---|---|
| Parents | |
| Children | |
| Coordinator | |
| Principal | |
| Vice-principal | |
| Counselor | |
| Home and School Visitor | |
| Psychologist | |
| MHS staff | |
| Technoma | |
| Teacher (Reg.) | |
| Teacher (MHS) | |
| Other agency | |
| Medical personnel | |
| Meeting | |
| Other | |

**Monthly summary of cases:**

Total cases active at end of previous month ______

New cases added ______

Cases reopened (same school year) ______ ______

Cases closed ______

Total cases active at end of this month ______ ______

Miscellaneous case contacts (casual) ______

---

**Number of children in resource room and adjustment class at end of this month:**

| School | Number |
|---|---|
| | |
| | |

# APPENDIX B

## STUDENT DATA CARD

Name______________________________No. _______________

Grade_____________Birth Date_________School____________

| | Rdg. Ach. | Rdg. R. C. | Arith. Ach. | Arith. R. C. | Cit. or No Cks. | Abs. | Tardy |
|---|---|---|---|---|---|---|---|
| 1965-66: | | | | | | | |
| 1966-67: | | | | | | | |

Repeated: 1st gr.___ 2nd gr.____ 3rd gr.____

No. of cit. cks.: 1st gr._____ 2nd gr.____ 3rd gr._____

# APPENDIX C

Pittsburgh
Public
Schools

## TEACHERS' RATING FORM FOR STUDENTS IN THE SPECIAL CLASS PROGRAM*

THIS FORM WAS DESIGNED TO HELP DETERMINE THE DEGREE OF PROGRESS MADE BY THE STUDENTS WHO HAVE BEEN ASSIGNED TO THE ADJUSTMENT CLASS OR RESOURCE ROOM PROGRAM. A SEPARATE ANSWER SHEET IS ATTACHED FOR EACH OF THESE STUDENTS. THE STUDENT'S NAME APPEARS ON THE SHEET PERTAINING TO HIM. PLEASE COMPARE THE CHILD'S PRESENT PERFORMANCE AND BEHAVIOR WITH HIS PERFORMANCE AND BEHAVIOR AT THE BEGINNING OF THIS SCHOOL YEAR AND INDICATE YOUR RATING ON EACH OF THE 11 ITEMS. YOUR OBSERVATIONS AND PROFESSIONAL JUDGMENTS WILL BE HELPFUL IN FUTURE PLANNING FOR THIS CHILD.

1. Relationship with other children:
   (1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

2. Relationship with authority:
   (1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

3. Participation in class activities:
   (1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

4. Work and study habits generally:
   (1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

5. Following directions:
   (1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

6. Paying attention:
   (1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

* Teachers actually recorded their ratings on digitek answer sheets. This page reproduces the directions and items of the answer sheets.

5-69
5-70
5-71

7. Completing assignments:
(1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

8. Pride in accomplishment:
(1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

9. Conformity to school rules and regulations:
(1) Marked improvement (2) Some improvement (3) No improvement (4) Deterioration

10. Did you know this child before he/she entered the adjustment class or resource room?
(1) Yes (2) No

11. How many months has this child been in your class this year (1966-1967)?
(1) 7 to 10 (2) 4 to 6 (3) 0 to 3

# APPENDIX D

## Interview Schedules for Principals

1. What do you expect the MHS Program to accomplish?
2. In general, how do you think the MHS Program is functioning?
3. In what ways have you been able to use the program as a resource?
4. What do you think is the strongest component of the program? The weakest?
5. Do you think there is sufficient communication between the adjustment class or resource room teacher and the regular teachers? Do regular teachers attend the consultation conferences?
6. What, if anything, would you like to change in the program?
7. Have you observed any changes in the behavior of the children who are in the adjustment class or resource room?
8. How is the referral and screening procedure functioning?
9. Do you think that the program can effectively serve a cluster of schools?

# 6. NONGRADED PROGRAM

# 6. NONGRADED PROGRAM

## Introduction

In September 1965 the Nongraded Program was introduced in four Pittsburgh Public Schools: (1) Crescent, (2) Letsche, (3) Lincoln, and (4) Weil. Approximately 1,097 children in grades 1 through 3 were involved. Preschool and kindergarten classes were also included, but their involvement was minimal.

The introduction of this program followed a year's planning by a committee of team leaders, principals, and supervisors, all of whom had had extensive experience with team teaching. Certain directors and assistants to the Superintendent in the Pittsburgh Public Schools served as consultants. These consultants worked with the committee members to define organizational procedures for the program, make curriculum recommendations, and select the schools to participate.

The primary objective of the Nongraded Program is to permit children to progress at their own rate, without the pressures of a predetermined schedule or the threat of nonpromotion. Children are grouped for instruction in each subject area according to their individual abilities and needs. Instruction is given by teachers who are members of a single primary team. An integral part of the program is the conferences teachers hold with the parents of each child.

In the 1966 evaluation of the Nongraded Program, data were gathered on the entering and ending levels for each child in reading, arithmetic, and spelling.[1] Each grade in the program was then examined to determine whether children worked below or above the levels usually defined for that grade. I. Q. data were also gathered so that the progress patterns of children with similar ability could be compared.

An analysis of the 1966 data revealed the following:

1. There were no distinct patterns of progression with respect to I. Q.
2. In general, the progress patterns of children within a given grade were confined to the levels designated for that grade.
3. While some children worked below the defined levels for their particular grade, there was a strong tendency for children to cluster at the highest level for their grade. Two possible explanations were offered for this result: (1) many children were pushed through levels so that they might complete the lock-step requirements for a particular grade, and/or (2) children who reached the highest defined level for a particular

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[1] By "level" is meant the curricular categories listed in Appendix A. The student is assigned to a particular level on the basis of tests constructed especially for this purpose. There is no specific schedule for testing; teachers are free to use the tests whenever they believe students are ready.

grade were not given the opportunity for further vertical progress.

Thus, it appeared that the objectives of the Nongraded Program were not met during the 1965-1966 school year. However, consideration should be given to the fact that time is needed to make organizational changes in a school, to train teachers for a new program, and to change the mental set of teachers and students previously following the lock-step method. Apparently, one year was not enough.

In the fall of 1966, six schools (Homewood, Madison, McKelvy, Miller, Northview Heights,[2] and Vann) were added to the Nongraded Program, bringing the total number of participating schools to 10. The new schools were chosen because their team teaching organizations were sufficiently developed to allow the addition of a new dimension--nongradedness.

In order to facilitate the integration of these schools into the program, monthly coordinators' meetings were held during the year. The purpose of these meetings was to give coordinators the opportunity to exchange ideas and to begin constructing levels tests for better evaluation of individual progress.

## Statement of the Problem

Ultimately the major question that must be asked of any program designed to improve academic achievement is whether or not there has been any improvement. This question cannot yet be asked of the Nongraded Program for two reasons.

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[2] Because of delays in getting the program launched in Northview Heights, the evaluation does not include data from this school.

First, standardized tests are available to measure achievement and subsequently determine a grade equivalent score for children in the traditional system, but no such instruments exist for the Nongraded Program. Consequently, it is impossible to evaluate a child of second-grade age who works at a third-grade reading level, a second-grade spelling level, and a first-grade arithmetic level.

Second, even if some measure of the overall achievement of each child were available, it would not be possible to determine whether or not this achievement represented improvement. Obviously, a child's performance in the Nongraded Program cannot be compared with his performance in the traditional system during the same period. If a control group of children enrolled in the traditional system with characteristics similar to those of children following the Nongraded Program had been included in the original design of the program, a comparison of achievement under both systems could have been made.

Even if it were possible to determine the academic improvement, if any, of children in the Nongraded Program, this improvement could not be attributed to the distinguishing characteristic of the program--nongradedness. The 1965-1966 program did not achieve nongradedness; the 1966-1967 program may have also been nongraded in name only.

Thus, the primary problem of this year's evaluation was to determine the degree of nongradedness attained.

An ancillary evaluation problem was to articulate the problems of the nongraded coordinator and to better define his dual role as coordinator and teacher.

## Method

In order to determine the degree of nongradedness achieved, the number of different progress patterns in 1966 were compared to the number of different patterns in 1967 for schools who had been in the program both years.[3] The progress patterns of the new schools were also compared with those of the original schools.

Data used in these comparisons were obtained from forms filled out by the teachers for 2,560 participating students. On these forms, the teachers recorded the date of entry into each new level, making it possible to compare the interval progress of students. (For the 1966 evaluation, the only available data were the entering and ending levels for each child.) Separate forms were used for reading, arithmetic, and spelling.

To gather information on the role and problems of the coordinator, a questionnaire was devised and administered to all coordinators in the program. A copy of this questionnaire is included in Appendix B.

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[3] The progress pattern was defined in the 1966 report as the distance between entry level and ending level for each child in any subject.

## Results

In analyzing the data, it became apparent that the progress patterns for 1966 and 1967 could not be compared for two reasons. First, even though a child might have been working in 1966 at a level outside the limits for his grade, he was always within a group of children from the same grade. This was not true in 1967; children appearing on a second-grade list in spelling were sometimes included in a third-grade arithmetic list. Second, in the 1966-1967 school year, a great deal of regrouping took place. Each child was constantly evaluated and adjustments were made to facilitate the best possible placement at any given time. This, too, made comparisons difficult with the more static 1965-1966 program.

Further study of the data revealed that a grade-by-grade analysis was also impossible. Even though children generally began and continued in the same group within their normal grade placement, there was evidence of variability. Therefore, it was decided to analyze the nongraded cycle as a whole for each academic subject in the school.

Tables C-1 through C-9 list the progress patterns in reading, arithmetic, and spelling for each school. They also list the number of students in each pattern and the corresponding percentage of the total group. In some cases, the same progress pattern appears more than once, indicating that internal rates varied even though beginning and ending levels were the same. It should also be noted that in most cases spelling was not part of the first-grade curriculum. Therefore, the number of students receiving spelling instruction is less than the total number in the primary cycle.

Tables C-1 - C-9 appear in Appendix C. The results for each school are discussed separately below.

## Crescent

The data for this school (see Table 1) indicate 43 different progress patterns in reading, 32 in arithmetic, and 12 in spelling. Of the 43 reading patterns, only five were followed by more than 15 children. Among these five patterns, no relationship is seen between total distance in patterns, entry levels or ending levels. This seems to favor the inference that nongradedness exists in reading. Twelve of the 32 arithmetic patterns, primarily at the highest and lowest levels, were followed by more than 15 students. Groups of similar size are evident in eight of the 12 spelling patterns. Again, these large groups cluster at the lowest and highest levels.

Thus, of the three academic subjects, the greatest variety in progress patterns at Crescent school is in reading. While some progress toward nongradedness seems to be taking place in arithmetic, there are still large clusters of children following the same patterns at the highest and lowest levels. Very little progress toward nongradedness appears in the data for spelling.

## Homewood

The data (see Table 2) reveal that Homewood had 33 progress patterns in reading, 19 in arithmetic, and nine in spelling. Of the 33 reading patterns, only three were followed by groups of more than 15 children. These patterns fall in the highest progress levels. Groups of more than 15 followed only nine of the 19 arithmetic patterns. These patterns also appear primarily at the highest levels. Of the nine spelling patterns, groups of more than 15 are indicated in only five. These groups seem to cluster at the lowest and highest levels.

In summary, Homewood School seems to have made the most progress toward nongradedness in the area of reading. Some progress seems to have taken place in arithmetic at the lower levels, but the higher levels show large clusters of children following the same pattern. In spelling, little progress has occurred.

## Letsche

Letsche School (see Table 3) reported data only in the area of reading. Of the 23 progress patterns, only two were followed by groups of more than 15, revealing good progress toward nongradedness.

## Lincoln

The data for Lincoln (see Table 4) show 30 progress patterns in reading, 10 in arithmetic, and seven in spelling. Only one of the 30 reading patterns shows a cluster of more than 15 children, indicating that a great deal of progress toward nongradedness has been made. Of the 11 patterns in arithmetic, 10 show clusters of more than 15. Five of the six spelling patterns show groups of similar size. In this school, too, reading appears to be the only area in which progress toward nongradedness has occurred. None is indicated for arithmetic or spelling.

## Madison

Table 5 presents the reading, arithmetic, and spelling patterns for Madison School. Of the 18 reading patterns, groups of more than 15 children are indicated in only two. Six of the seven progress patterns in arithmetic and five of the spelling patterns show groups of this size. Thus, of the three academic subjects, the only progress that appears to have taken place is in reading.

## McKelvy

The data collected from McKelvey are presented in Table 6. They show 26 patterns in reading, nine in arithmetic, and 13 in spelling. Of the 26 patterns in reading, the fact that only one shows a cluster of more than 15 children indicates good progress toward nongradedness. Of the nine patterns in arithmetic, all were followed by more than 15 students. Thus, no progress toward nongradedness has occurred. The spelling data, however, indicate some progress, since groups of more than 15 are evident in only four of the 13 patterns. In summary, progress has been made in reading and spelling, but not in arithmetic.

### Miller

In the data for Miller School (see Table 7) 33 patterns in reading, 13 patterns in arithmetic, and six patterns in spelling appear. Of the 33 patterns in reading, only three show clusters of more than 15 children. Eleven of the 13 arithmetic patterns and all of the six spelling patterns show large groups. Thus, reading is the only area in which progress is indicated.

### Vann

The 26 patterns in reading, 11 in arithmetic, and six in spelling for this school are shown in Table 8. Of the reading patterns only one shows a cluster of more than 15 children. Eight of the 10 arithmetic patterns were followed by more than 15 students, indicating little or no progress toward nongradedness. Of the seven patterns in spelling, four show groups of more than 15. Again, little progress seems indicated. Thus, progress has been made at Vann in reading, but not in arithmetic or spelling.

### Weil

The data for Weil (see Table 9) reveal 38 progress patterns in reading, 15 in arithmetic, and nine in spelling. Of the reading patterns, four show clusters of more than 15 children. These clusters are randomly distributed among the patterns. Thirteen of the 15 patterns in arithmetic and seven of the nine spelling patterns were followed by groups of 15 or more. Once again, it is evident that progress toward nongradedness in reading has taken place, although no progress is indicated in either spelling or arithmetic.

## Coordinators' Questionnaire

The data from the questionnaires distributed to the coordinators in the Nongraded Program indicated that the majority of the coordinators held daily conferences with team leaders. Their meetings with other personnel involved in the program were, in general, held on an irregular basis. There was a great deal of variability in the responsibilities listed by each coordinator. Two had a full-time teaching assignment; two taught half-time. The remaining coordinators spent from 70 to 95 percent of their time teaching.

When asked which duties should be included in the definition of a coordinators' rôle, the most common responses were grouping for instruction; preparing master schedules; diagnosing tests, guiding teaching interns in their assignments; acting as a liaison between administrative, supervisory, and supportive personnel and the primary team; and coordinating general team meetings. When asked which duties should be handled by someone else, the coordinators mentioned preparing weekly schedules; giving in-service training to others; and handling discipline problems for other teachers.

Four of the seven coordinators answered "Yes" when asked if released time provided them with the opportunity to function at a higher professional level. Of all their duties, the coordinators responded that the following three were on the highest professional level: (1) acting as a liaison between administrative, supervisory, and supportive personnel and the primary team; (2) providing guidance in planning and in techniques of classroom management with other team members; and (3) giving in-service training to others.

Of the additional questions, the coordinators' responses can be briefly summarized. The main shortcomings of the program appear to them to be lack of personnel, inadequacy of in-service training, and a need for more materials.

## Discussion and Conclusion

The major finding of the 1967 evaluation of the Nongraded Program was that progress has been made toward nongradedness in only one area--reading. There are three possible explanations for this result. First, the process of regrouping, already a part of the team teaching organization, has been used more extensively in reading than in arithmetic or spelling. Thus, progress in reading may have been only an extension of an already well-established process. Second, given the capabilities of the teachers and the limitations in materials and school conditions, perhaps only one subject at a time could be organized for nongradedness and the subject elected was reading. The third reason may be inherent in the levels themselves. Since there are more reading levels than arithmetic or spelling levels, the probability of greater variability in beginning and ending levels, an indication of nongradedness, is greater in reading.

To promote nongradedness in all subjects, the following steps might be considered:

1. The sequences be more carefully defined, taking into consideration the skills assumed in any lesson in the sequence and whether or not a prior lesson insured the mastery of those skills. Reliance on the sequences of text books is not sufficient, since these often assume many skills never explicitly taught, and skills are not always introduced in small enough sequences.
2. If the standard basal readers and arithmetic series are not adequate by the criteria for sequencing listed above, new materials be chosen. Some guidelines for choosing materials are as follows:
    a. Materials should be sequenced so that all skills assumed for any given lesson have been taught in previous lessons.
    b. Materials should be designed to insure sufficient feedback so that a child's progress does not depend on contact or frequent interaction with the teacher.
    c. Materials should provide enough variability in method of

presentation to provide the child with alternative ways to master the lesson or to repeat it if necessary.

3. The Nongraded Program requires teachers to handle a greate variety of activities in the classroom. If the materials described above were available, teachers would be better equipped to do this.
4. Better tests for diagnosis be selected or designed, and teachers be trained in test diagnosis.

Outside of the Nongraded Program itself, there are problems in the area of pupil evaluation. If it is considered necessary to compare individual progress, a method compatible with the nongraded system must be devised.

# APPENDICES

# APPENDIX A

# Reading Levels

## Levels 1-4 Readiness

### Level 1 Pre-Reading

Children assigned to this level have shown indications of physical, mental, and/or social immaturity for their age. They have been identified by the group tests given in the kindergarten, the teachers' observations, and the individual Binet test administered by the psychologist. Their scores on the Metropolitan Readiness Test indicate a "poor risk" rating.

For these children, the Pre-Reading Program is designed to bridge the gap between the informality of the kindergarten and the more structured formal reading program beginning at Level 5. At this level, the following understandings, skills and abilities are developed.

Children:

1. understand and use the words known to most of their peer group.
2. listen and follow simple oral directions.
3. coordinate hand and eye movements.
4. increase span of attention.
5. interpret a picture or series of pictures.
6. identify likenesses and differences in configuration and patterns.
7. look at objects and words in left to right, top to bottom, front to back progression.
8. listen with interest to stories and poems read to them.
9. discriminate and identify the sound of spoken words which begin with the same or different sounds.
10. identify and enjoy rhyming words.
11. adjust to group-learning situations and activities.
12. respond with phrases rather than single words.
13. retell an experience in order of events.
14. classify objects and ideas

### Level 2 We Read Pictures

Children assigned to this level may have shown the need for further oral-language development. At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. understand and use the words known to most of their peer group.
2. build desirable language patterns.

3. add to their store of language meanings.
4. comprehend phrase and sentence meanings.
5. grasp the main idea of a picture story.
6. identify characters and interpret the action of the picture.
7. sense emotional reactions.
8. refine visual perception - compare and contrast.
9. associate sensory images as an aid to remembering.
10. look at objects and words in left to right, top to bottom, front to back progression.
11. listen and enjoy stories, poems, and rhymes read to them.
12. improve their motor coordination for handling books, turning pages, etc.
13. understand that words are symbols.
14. use books for many purposes.
15. interpret stories in the light of their own experiences.

## Level 3 We Read More Pictures

Some children will go directly from Level 2 to Level 4 omitting Level 3. However, other children who need further language development will benefit from the additional time and the special materials and methods provided in Level 3. At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. understand and use the words known to most of their peer group.
2. concentrate and cooperate in group activities.
3. adjust to quiet, independent activities.
4. listen to stories and enjoy looking at books.
5. identify and grasp the main idea in picture study.
6. make simple auditory and visual discriminations.
7. make associations as an aid to memory.
8. express their ideas in good language patterns.
9. acquire the experience background needed for formal reading.
10. read a series of pictures and retell the story in sequence.
11. participate in group conversation.
12. make inferences and predict outcomes.
13. control large and small muscles in handling books. turning of pages, and drawing of lines under appropriate pictures, etc.
14. follow simple oral directions.
15. look at objects and words in left to right, top to bottom, front to back progression.
16. understand that words are symbols.

## Level 4 Before We Read

Level 4 begins the basic readiness program for all children. At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. listen attentively and refine their auditory perception, identify likenesses and differences in sounds and words and identify and enjoy rhymes.
2. add to their stock of language meanings.
3. refine their visual perceptions - identify likenesses and differences in size, direction, motion and distance.
4. associate printed words with spoken words.
5. coordinate eye and hand movements.
6. grasp the main idea in a picture or series of pictures.
7. note details and relationships.
8. sense emotional reactions and infer motives of story characters.
9. react to story content and relate it to their own experience.
10. comprehend phrase and sentence meanings.
11. formulate sentences.
12. form sensory images as an aid to remembering.
13. identify meaning of the spoken word in specific context.
14. express the interpretation of the story.
15. organize and summarize ideas.
16. classify and organize words and ideas and objects into categories.
17. understand that words are symbols.
18. note relationships of sound and meaning of words.
19. enjoy learning to read.

## Levels 5-7 Pre-Primers

### Level 5 First Pre-Primer, Now We Read

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. make a rapid and smooth transition from picture reading to reading printed symbols.
2. perceive words as symbols of language.
3. enjoy the experiences of the story and relate them to their own experiences.
4. grasp the main idea of the story.
5. associate sound and meaning with the visual form of language.
6. identify both capital and lower case forms of words.
7. understand the use of capital letters for proper names and beginning of sentences.
8. follow simple directions.
9. recognize the 21 sight words introduced in the stories.
10. make use of the context as a clue to meaning.
11. match spoken words with printed symbols and arrange them in a sentence.
12. read fluently and naturally.
13. interpret story in dramatic play.
14. enjoy reading.

## Level 6 Second Pre-Primer, Fun With the Family

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. read to check inferences made in picture study.
2. are aware of marks of punctuation as a clue to meaning.
3. follow written directions.
4. note similarities and differences in word forms.
5. associate the consonant sounds of f,m,d,s, and p with their visual forms.
6. use careful scrutiny of word forms as an aid to recognition of sight vocabulary.
7. use consonant substitution to identify new words.
8. recognize negative statements.
9. compare and contrast stories.
10. use the Table of Contents to locate a story.
11. recognize the 43 words in the first two preprimers.
12. read for personal enjoyment and satisfaction.

## Level 7 Third Pre-Primer, Fun Wherever We Are

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. associate consonant sounds with printed letters.
2. identify printed words with which they are not familiar by the clue of consonant substitution.
3. organize and classify objects and ideas to form concepts and generalizations.
4. extend their verbal experiences with language.
5. read for meaning- using the context as a means for understanding unknown word forms.
6. recognize the 54 sight words presented in the pre-primer program.
7. understand and respond to oral instructions needed to
    a. comprehend sentence meaning
    b. form sensory images
    c. sense emotional reactions
    d. grasp cause-effect realtionships
    e. select the correct form of words
    f. select the symbol that identifies the initial sound of the name of an object
    g. use consonant substitution, context, and pictures in attacking unknown or unfamiliar words.

These skills (a-g) are measured by the basic tests for the Pre-Primer levels.

## Level 8-9 Primer, Fun With Our Friends

### Level 8 Primer Unit 1 pp. 7-77

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. distinguish the main idea of the story.
2. recognize positive values in the story.
3. enlarge their store of sight words.
4. read silently and independently.
5. make use of the context as a useful hint to pronunciation and meaning of the word.
6. compare new words with other known words.
7. identify consonant letters and associate sounds most commonly represented.
8. combine context clues with phonetic clues to attack words.
9. carefully scrutinize word and letter forms.
10. master the 52 new words presented in Unit 1.

### Level 9 Primer, Unit 2 pp. 78-151

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. use association and sequence as aids to memory.
2. form a summary statement of the action in a picture.
3. enrich their store of language meanings.
4. identify variant forms of verbs in printed form.
5. classify words by meaning and function.
6. organize ideas in sequence.
7. note change of meaning caused by one change of sound and letter.
8. master the 49 new words presented in Unit 2.
9. understand and respond to the various parts of the basic tests for the Primer level.

## Levels 10-12 Book 1, More Fun With Our Friends.

### Level 10 Book 1 Unit 1 pp. 7-74

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. use a beginning consonant sound in combination with a context clue to unlock words not in their sight vocabularly.

2. associate one sound with double consonant letters at the end of a word and with the two letter symbols wh, ch, th, and sh.
3. recognize and use blends of two letters (s,l, or r blends) as parts of whole words.
4. increase their ability in phonetic analysis using the initial sounds z, ch, th, wh, and y.
5. understand that a consonant letter may represent more than one sound.
6. understand that the same consonant sound may be represented by more than one letter.
7. understand structural changes made by adding s, ed, or ing to known words.
8. identify compound words made up of two known root words.
9. combine context and structural analysis to identify printed words.

Level 2 Book 1 Unit 2 pp. 75-126

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. grasp ideas implied but not directly stated.
2. perceive time and sequence relationships.
3. sense need for changes in pace and volume in oral interpretation.
4. project meaning, mood, and emotion through intonation.
5. anticipate words in sentences.
6. understand meaning and function of words.
7. blend consonant sounds in words (s with t, l, p) (r with b, f, g, p, t) ( and l with b, c, f, g, p, and s).

Level 12 Book 1 Unit 3 pp. 127-187

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. recall details to make or check inferences.
2. anticipate action or outcome.
3. sense emotional reactions and infer motives of story characters.
4. comprehend phrase and sentence meaning.
5. identify meaning of a word in a specific context.
6. organize and summarize ideas.
7. blend consonant sounds in words.
8. use the skill of substitution for initial and final consonant sounds in words.
9. understand structural changes made by adding er of comparison to known words.
10. combine structural and phonetic analysis.
11. understand and respond to the various parts of the basic tests for Book 1.

Level 13 Book 2 - Pt. 1 pp. 7-75

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. identify root words in inflected forms and the endings s, ed, and ing, and the possessive form's.
2. use context and beginning dictionary to identify unfamiliar words.
3. associate more than one sound with certain consonant letters.
4. understand that a consonant letter may represent no sound in a printed word.
5. identify and discriminate between two vowel sounds and note a visual clue to the vowel sound in one syllable words.
6. associate the vowel of ice and the vowel of it with the letter "i" in the printed form.
7. use capital letters and punctuation as aids to comprehension.
8. assemble parts of sentences in logical order.

Level 14 Book Two - Pt. 1 pp. 76-147

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. interpret idiomatic and figurative speech or language.
2. extend their understanding of long and short vowels.
    a. identify and discriminate between the sounds of the vowel of at and the vowel of age.
    b. identify two other sounds of the vowel "a" as in car and in all.

    c. understand that a single vowel letter at the end of a one syllable word is usually a clue to a long vowel sound.
3. identify inflected forms of known root words in which the final consonant letter is doubled before the ending.
4. perceive time relationships as clues to interpretation.
5. recognize the form and meaning of derived forms made by adding the suffix er.
6. use context and clues to vowels sounds to identify unfamiliar words.
7. project meaning through intonation in oral reading.
8. understand that a word may have more than one meaning.
9. combine structural and phonetic clues to identify new words in context.
10. use skills to identify words independently in their personal reading.

Level 15 Book Two - Pt. 1 pp. 148-233

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. distinguish between reality and fantasy.
2. extend vowel understandings to the vowel "u".
3. note that two vowel letters together in a word are often a clue to a long vowel sound.
4. understand that final "e" in one syllable words like cake and time is often a visual clue to a long sound.
5. identify the clue to "gh" following vowel "i".
6. identify the clue that "y" at the end of a word may be changed to "i" before an ending.
7. understand and respond to onomatopoeic words.
8. use an outline as an aid to memory.
9. make use of "y" as a suffix to form adjectives.
10. master the vocabulary introduced up to this point.
11. use sight vocabulary, context, and word-analysis skills to attack new words in extension and personal reading.
12. understand and respond to the various parts of the basic tests for Book II, Part 1.

Level 16 Book Two Pt. 2 pp. 7-93

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. apply word analysis skills while reading independently.
2. identify general organization of a paragraph.
3. make and apply generalizations about visual clues to short or r-controlled vowel sounds.
4. identify the "v" sound in spoken words and associate it with the letter "v" in printed words.
5. associate "kw" sounds in words with the printed letters "qu:" "skw" sound with the printed "squ;" "ks" sound with the printed letter x.
6. sense the need for change in volume in oral reading.
7. recognize and understand the use of figurative language.
8. anticipate a word in a sentence.
9. recognize alphabetical sequence (by first letter) and general alphabetical position.
10. use context to discriminate meanings of words.
11. comprehend the meanings of words to which the prefix un has been added.
12. are aware of words of similar meanings - synonyms.
13. recognize spelling patterns that function as clues to vowel sounds.
14. understand that letters "oo" may stand for the vowel of boot or the vowel of book.

Level 17 Book 2 Pt. 2 pp. 94-171

At this level, the following understandings, skills, and abilities are developed and maintained.

**Children:**

1. perceive place relationships and organize events in sequence for the purpose of remembering.
2. summarize information given in a story.
3. associate diphthong heard in out and now with the printed letters ou and ow.
4. recognize root words in derived and inflected forms containing two affixes.
5. interpret idiomatic language.
6. recognize alphabetical order of words that begin with the same letter.
7. identify the ending en and note its function; identify en as a suffix and note its function.
8. perceive analagous relationships.
9. use contractions that have two meanings.
10. use clues to identify pairs of similar words.
11. identify visual clues to long vowel sounds.
12. use first and second letters to locate words in alpahbetical list.
13. note spellings that may represent consonant sounds.
14. comprehend factual material.

Level 18 Book 2 Pt. 2 pp. 172-263

At this level, the following understandings, skills, and abilities are developed and maintained.

**Children:**

1. evaluate actions and motives of the characters in the story.
2. read with conversational stress and pitch patterns; use variations in volume, pitch and quality of voice to delineate character.
3. classify realistic and fanciful stories.
4. compare ideas in stories.
5. note elements of style of folk tales.
6. associate sound with letters "oi" and with "oy" at the ends of words.
7. recognize the purpose of the story.
8. use sensory images as an aid to memory.
9. locate words in alphabetical lists that include words in which the first three letters are identical.
10. use repetitive aspect and size relationships to remember the story.
11. identify synonyms.
12. show reasonable mastery of the vocabulary and skills as measured by the basic test for Book II, Part 2.

## Level 19 Book Three - Pt. 1 pp. 6-93

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. recognize general alphabetical position and sequence.
2. understand that a syllable is a part of a word in which a vowel sound is heard.
3. identify the accented syllable; the schwa sound.
4. use the vowel-consonant spelling patterns as clues.
5. use a glossary or dictionary to note guide words and to note that entry words are usually root words.
6. extend the skill in locating a word and its appropriate meaning for its context.
7. use the pronunciation key.
8. use and extend structural analysis to prefixes and suffixes.
9. combine structural and phonetic analysis to identify inflected and derived forms of unfamiliar two syllable root words.
10. apply interpretation skills to more mature and complicated stories of greater variety of literary forms.
11. apply independently the interpretative and word analysis skills in personal reading.

## Level 20 Book 3 Pt. 1 pp. 94-161

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. maintain and correlate knowledge gained over a period of several stories.
2. note the author's purpose and style.
3. stimulate imagery and prepare for thinking about events alien to their experience.
4. enrich their speaking, reading and writing vocabulary and become aware of various ways of expressing same ideas.
5. become familiar with pronunciation key as used in a beginning dictionary.
6. interpret the symbol for long vowel sounds.
7. use the glossary for pronunciation and meanings of words.
8. read information articles.
9. use and assimilate difficult materials.
10. fuse new ideas with old and familiar material.

Level 21 Book 3 - Pt. 1 pp. 162-241

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. understand the concept of homographs.
2. locate information to reveal character traits.
3. develop the habit of creating vivid mental images without the aid of illustrations.
4. use punctuation as an aid to comprehension and
5. interpret dictionary pronunciations of multi-syllabic words.
6. use cross references in glossary and beginning dictionary.
7. develop independence in interpretation.
8. establish the habit of identifying new words independently in all reading activities.
9. master the skills of word analysis.
10. establish their own purposes for reading.
11. read, understand, and follow printed directions.
12. show reasonable mastery of the vocabulary and skills as measured by the basic test for Book 3 Part 1.

Level 22 Book 3 - Pt. 2 pp. 6-101

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. summarize and make judgments based upon facts read in an article.
2. use and understand idioms and figurative language.
3. extend their ability to use phonetic analysis in identifying words of three or more syllables.
4. understand that different consonant letters may represent the same consonant sound.
5. understand that different spellings may represent the same vowel sound.
6. use the dictionary key to pronunciation.
7. use punctuation and style of type as clues to stress and pace in oral reading.

Level 23 Book 3 Pt. 2 pp. 102-171

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. understand a variety of time spans.
2. extend their ability to use phonetic analysis
    a. spelling patterns provide visual clues to vowel

sounds in accented syllables, apply to syllables with secondary accents.
3. extend their ability to use structural analysis with the differentiation between the numerical suffixes (ty and th) and the noun forming suffixes (ty and th).
4. use dictionary skills to find biographical entries, cross references, homographs, alternate spellings, and words with two pronunciations.
5. refine their interpretative skills and abilities - perceiving relationships, understanding motives, sensing mood and emotion.
6. strengthen their ability to make valid inferences and judgments on the basis of given facts.

Level 24 Book 3 Pt. 2 pp. 172-265

At this level, the following understandings, skills, and abilities are developed and maintained.

Children:

1. develop a sensitivity to clues that indicate character, mood and plot development.
2. respond to different types of poetry more varied in form and subject matter.
3. are aware of the sensory imagery, alliteration, rhythm which distinguishes each poem.
4. interpret dialogue orally - using appropriate rate, pitch and volume.
5. appreciate factual as well as fictional prose and poetry.
6. become acquainted with the limerick form.
7. think beyond the literal meaning - use the text to verify ideas and inferences.
8. be independent in word analysis - use reading as a tool and a pleasure.
9. show reasonable mastery of the vocabulary and skills as measured by the basic test for Book 3 Part 2.

## Arithmetic Levels

The teacher determines both through judgement and testing the readiness of a child to move from one level to the next. The following will serve to guide teachers as they determine when a child should move on to the next level of work.

### Levels 1-4 Readiness

Children assigned to Levels 1-4 have shown indication of physical, mental, and/or social immaturity for their age. Children will not, in all probability, skip any of these levels, but will proceed through them at varying rates according to their abilities and their growth.

### Level 1 Arithmetic Primer (Laidlaw Brothers) pp. 1-37

At this level, the following understandings, skills and abilities are developed. Children:

1. match one to one.
2. recognize, identify and compare equivalent sets.
3. understand and use the terms larger and smaller.
4. understand and use cardinal numbers and numerals 1 and 2.
5. know the addition combination 1 + 1 = 2.
6. identify circular shapes.

### Level 2 Arithmetic Primer pp. 38-75

At this level, the following understandings, skills and abilities are developed and maintained. Children:

1. match one to one.
2. recognize, identify and compare equivalent sets of 2 and 3.
3. understand and use cardinal numbers and numerals 2 and 3.
4. know the addition combinations of 3.
5. know the subtraction combinations of 2 and 3.
6. identify square and square shapes, the rectangle and rectangular shapes.

### Level 3 Arithmetic Primer pp. 76-113

At this level, the following understandings, skills and abilities are developed and maintained. Children:

1. match one to one.
2. recognize, identify and compare equivalent sets of 4 and 5.
3. match a numeral with a set of 1,2,3,4 or 5.

4. understand and use cardinal numbers and numerals 4 and 5.
5. know the natural order of numbers and numerals 1 through 5.
6. know the addition combinations of 4 and 5.
7. know the subtraction combinations of 4 and 5.
8. identify the triangle and triangular shapes.

Level 4 Arithmetic Primer pp. 114-127

At this level, the following understandings, skills and abilities are developed and maintained. Children:

1. recognize, identify and compare equivalent sets of 6,7,8,9 and 10.
2. match a numeral with a set of 6,7,8,9, or 10.
3. know and use cardinal numbers and numerals through 10.
4. know the natural order of numbers and numerals 1 through 10.

Levels 5-8 Book One Modern Arithmetic Through Discovery (Silver Burdett Co.)

Level 5 Book One pp. 1-28

Level 5 begins the basic mathematics program for all children. At this level, the following understandings, skills and abilities are developed and maintained. Children:

1. match one to one.
2. understand and compare sets and subsets.
3. match numerals with sets.
4. understand and use terms: sets, as many as, more than, fewer than, most and fewer, and not any.
5. know cardinal numbers 1 through 9 and 0.
6. read and write numerals 1 through 9 and 0.
7. know and use ordinal numbers first through ninth.
8. know addition facts with sums of 2,3,4,5 and 6.
9. use the concept of "one more" in developing the sequence of numbers and numerals.
10. group tens to understand the tens place in place value.
11. interpret, write and solve number stories which involve addition.

Level 6 Book One pp. 29-66

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. understand and use terms and signs: plus (+), less (-), is (-), and cent or cents (¢).
2. know cardinal numbers 1 through 99 in sequence.
3. read and write numerals 1 through 99.
4. subtract using minuends of 4,5, and 6.
5. associate and read numerals 10 to 100 by tens.
6. associate and read numerals to 99 by tens and ones.
7. interpret, write and solve number stories involving addition and subtraction.
8. know and use one half of a whole and one half of a set.

9. know pennies and nickels and the relationship between them.

Level 7 Book one pp. 67-103

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. know and use cardinal numbers and numerals 1 through 100 in sequence.
2. add facts with sums of 6,7, and 8.
3. add in the vertical form.
4. add with two figure numerals.
5. add three numerals
6. understand and use the commutative principle.
7. subtract with minuends of 6,7,and 8.
8. subtract in the vertical form.
9. subtract with two figure numerals.
10. understand the relationship between addition and subtraction in solving problems with two figure numerals.
11. solve picture problems using addition and subtraction.
12. know some units of measure and the relationships between them
    - money--penny, nickel and dime.
    - liquid--pint, half pint and the quart.
    - linear--inch.
13. recognize geometric shapes.

Level 8 Book One pp. 104-160

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. know and use cardinal numbers and numerals 1 through 150.
2. recognize odd and even numbers.
3. count by odd and even numbers.
4. use the number line: in determining relationships of numbers, in subtraction and in addition.
5. add with sums to 10.
6. use the commutative principle in addition.
7. add 3 numerals in vertical form.
8. subtract with minuends to 10.
9. use the relationship between the addition and subtraction facts.
10. use bundles of ones, tens, and hundreds with three figure numerals from 100 to 150.
11. solve problems.
12. find one half of a whole and one half of a set.
13. tell time to the hour and the half hours.

Levels 9-12 Book Two Modern Arithmetic Through Discovery (Silver Burdett Co.)

Level 9 Book Two pp. 1-34

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. match one object in one set to two objects in another set.

2. understand and compare sets and subsets.
3. understand cardinal numbers 0 to 100 in sequence.
4. use the number line: in determining relationships of numbers, in determining patterns, in addition and in subtraction.
5. match numerals with sets.
6. read and write numerals in sequence 0 to 100.
7. understand two figure numerals.
8. complete numeral charts to discover patterns to 100.
9. know ordinal numbers first to tenth.
10. add and subtract with sums and minuends to eight.
11. understand place value using bundles and groupings of ones and tens.
12. solve story problems involving addition and subtraction.
13. find one half of a whole and one fourth of a whole.
14. know units of measure
    - money--penny, nickel, dime.
    - linear--inch and half inch.
    - time--to the five minute interval.

### Level 10 Book Two pp.35-78

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. understand cardinal numbers to 300.
2. read and write numerals to 300.
3. discover patterns to 300.
4. add and subtract with sums and minuends to 12.
5. use the commutative principle.
6. use the associative principle when adding 3 numerals.
7. write and solve the four related number sentences.
8. add in vertical form.
9. use the number line in addition and subtraction.
10. understand place value using bundles and groupings on ones, tens and hundreds.
11. add two figure numerals.
12. solve word problems.
13. find one half of a set and one fourth of a set.
14. know units of measure
    - liquid--quarts, pints, half pints, cups.
    - linear--inch and half inch.
    - days, weeks, months on a calendar.
15. recognize some geometric concepts.
    - line.
    - line segment.
    - right angle (square corner).
    - properties of geometric figures.

### Level 11 Book Two pp. 79-119

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. understand cardinal numbers to 1000.
2. read and write numerals to 1000.
3. discover patterns to 1000.
4. add and subtract facts with sums and minuends to 18.

5. add numerals with sums greater than 100.
6. subtract numerals with minuends greater than 100.
7. understand addition and subtraction of two figure numerals with zero.
8. understand place value of ones, tens, and hundreds.
9. solve word problems.
10. find one third of a whole and one third of a set.
11. know units of measure.
    money--quarter, half dollar, dollar.
    time--five minute interval.
    dozen and half dozen.
12. recognize the properties of a circle.

Level 12 Book Two pp. 120-160

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. count cardinal numbers and numerals by twos, fives, and tens.
2. understand and use inequalities, is greater than (>), is less than, (<), and is equal to ( = ).
3. discover patterns in sequences.
4. use the number line in addition and subtraction.
5. use the associative principle when adding three numerals.
6. understand multiplication, its relationship to addition and division, and its relationship to subtraction.
7. solve comparison problems using subtraction, how many, fewer, how many more.
8. multiply and divide problems with products and quotients to 18.
9. use the commutative principle in multiplication.
10. understand the relationship between multiplication and division.
11. solve word problems.
12. know unit of measure
    degrees on thermometers.
13. illustrate the relationship of points and lines.

Levels 13-16 Book Three Modern Arithmetic Through Discovery (Silver Burdett Co.)

Level 13 Book Three pp. 1-84

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. express cardinal numbers and numerals in different ways.
2. understand cardinal numbers to 2000.
3. read and write numerals to 2000.
4. compare cardinal numbers and numerals.
5. understand inequalities.
6. add and subtract the basic facts to 18.
7. regroup two and three-figure numerals.
8. discover patterns in addition.
9. use the associative principle.
10. solve comparison problems through subtraction.
11. check addition and subtraction.
12. understand place value of ones, tens, hundreds, and thousands.
13. use problem solving techniques to solve word problems.

14. use fractions to compare parts of a whole and parts of a set.
15. know units of measure
    money--dollar sign and point.
    time--to five minute intervals.

Level 14 Book Three pp. 85-170

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. are able to give different names for a number.
2. contrast Roman numerals with Arabic numerals.
3. estimate answers.
4. regroup ten ones as one ten in addition.
5. regroup ten tens as one hundred in addition.
6. regroup one ten as ten ones in subtraction.
7. regroup one hundred as ten tens in subtraction.
8. add numerals in a column.
9. use the algorithm instead of regrouping in addition and subtraction.
10. use higher decade addition with and without bridging.
11. use place value as a basis for regrouping.
12. use problem solving techniques to solve word problems.
13. understand and use fractional parts of a whole.
14. write fractions 1/2, 1/3, 1/4, 1/6, and 1/8.
15. find equivalent fractions.
16. know units of measure
    linear--inches, feet, yard, to fourth of an inch.
    weight--pound, ounces.
    time--to the minute.

Level 15 Book Three pp. 171-226

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. read and write numerals to five places (19,000).
2. estimate answers.
3. add and subtract to maintain skills.
4. understand multiplication as repeated addition and division as repeated subtraction.
5. use the number line in multiplication and division.
6. use the commutative principle of multiplication.
7. identify elements for multiplication.
8. use the symbol for multiplication.
9. understand division as the inverse of multiplication.
10. multiply and divide to the hundreds place.
11. use the distributive principle.
12. know and use products and quotients to thirty.
13. understand place value to ten thousands place.
14. decide which of the four operations or combinations of them to use in problem solving.
15. understand the relationship of division to the fractional parts of the number in a set.
16. know units of measure
    liquid--half gallon, gallon, pints, quarts.

linear--mile.
degrees--thermometers.

17. recognize some geometric concepts:
    - plane figures and their properties.
    - point.
    - line.
    - line segment.
    - right angle (square corner).
    - sets of points in a plane.

Level 16 Book Three pp. 227-282.

At this level, the following understandings, skills, and abilities are developed and maintained. Children:

1. add and subtract to the thousands place.
2. discover patterns using addition, subtraction, multiplication and division charts and grids.
3. use the vertical form for multiplication (algorithm).
4. use the long division form (algorithm).
5. use the distributive principle.
6. find quotients using two place numerals.
7. multiply to check division.
8. use the associative principles of multiplication.
9. understand that problems can be solved in more than one way.
10. solve problems in more than one way.
11. use the number line to find equivalent fractions.
12. know units of measure:
    - ounces and pounds on a scale.
13. recognize, understand, and read bar and picture graphs.
14. recognize some geometric concepts.
    - solid figures (cubes and spheres).
    - relationship of the circle to the sphere.

# Spelling Levels

## Book 2 Spelling Goals

| | |
|---|---|
| Level 1 | Pages 1 to 31<br>Units 1 to 6 |
| Level 2 | Pages 32 to 45<br>Units 7 to 12 |
| Level 3 | Pages 46 to 59<br>Units 13 to 18 |
| Level 4 | Pages 60 to 73<br>Units 19 to 24 |
| Level 5 | Pages 74 to 87<br>Units 25 to 30 |
| Level 6 | Pages 88 to 99<br>Units 31 to 36 |

## Book 3 Spelling Goals

| | |
|---|---|
| Level 7 | Pages 1 to 19<br>Units 1 to 6 |
| Level 8 | Pages 20 to 33<br>Units 7 to 12 |
| Level 9 | Pages 34 to 47<br>Units 13 to 18 |
| Level 10 | Pages 48 to 61<br>Units 19 to 24 |
| Level 11 | Pages 62 to 75<br>Units 25 to 30 |
| Level 12 | Pages 76 to 89<br>Units 31 to 36 |

## Book 4 Spelling Goals

| | |
|---|---|
| Level 13 | Pages 1 to 19<br>Units 1 to 6 |
| Level 14 | Pages 20 to 33<br>Units 7 to 12 |
| Level 15 | Pages 34 to 47<br>Units 13 to 18 |
| Level 16 | Pages 48 to 61<br>Units 19 to 24 |
| Level 17 | Pages 62 to 75<br>Units 25 to 30 |
| Level 18 | Pages 76 to 89<br>Units 31 to 36 |

# APPENDIX B

## NONGRADED COORDINATORS QUESTIONNAIRE

Name____________________ School______________ No. of Coordinating Team Leaders________

Number of teachers in the cycle________________________

The purpose of this questionnaire is to determine the responsibilities of the coordinator and to determine the areas which appear to be problems in meeting the objectives of individualizing instruction.

I. Conferences

Please check the approximate amount of time devoted to conferences with each of these persons:

| | Daily | Weekly | Monthly | Irregular Basis |
|---|---|---|---|---|
| 1. Team Leaders | ___ | ___ | ___ | ___ |
| 2. Other cycle members | ___ | ___ | ___ | ___ |
| 3. Principals | ___ | ___ | ___ | ___ |
| 4. Supervisors | ___ | ___ | ___ | ___ |
| 5. Parents | | | | |
| a. Scheduled | ___ | ___ | ___ | ___ |
| b. Unscheduled | | | | |
| 6. Psychologists | ___ | ___ | ___ | ___ |
| 7. Home-School Visitors | ___ | ___ | ___ | ___ |
| 8. Tutors | ___ | ___ | ___ | ___ |
| 9. Mental Health Team | ___ | ___ | ___ | ___ |
| 10. Counselors | ___ | ___ | ___ | ___ |
| 11. Others (Please specify) | ___ | ___ | ___ | ___ |

II. What percentage of the time do you have a regular teaching assignment? ______

III. Check the the duties for which you assume responsibility:

| | Full Responsibility | Partial Responsibility |
|---|---|---|
| 1. Grouping for instruction in: | | |
| a. Language arts | _____ | _____ |
| b. Mathematics | _____ | _____ |
| c. Music | _____ | _____ |
| d. Art | _____ | _____ |

| | Full Responsibility | Partial Responsibility |
|---|---|---|
| e. Physical education | ______ | ______ |
| f. Social studies | ______ | ______ |
| g. Science | ______ | ______ |
| h. Health | ______ | ______ |
| 2. Preparing master schedule | ______ | ______ |
| 3. Preparing weekly schedule | ______ | ______ |
| 4. Diagnosing tests | ______ | ______ |
| 5. Guiding teaching interns in their assignments | ______ | ______ |
| 6. Directing services of team mother | ______ | ______ |
| 7. Acting as a liaison between administrative, supervisory, and supportive personnel and the primary team | ______ | ______ |
| 8. Assuming responsibility for all records | | |
| a. Reading | ______ | ______ |
| b. Math | ______ | ______ |
| c. Spelling | ______ | ______ |
| 9. Scheduling use of space and equipment | ______ | ______ |
| 10. Providing guidance in planning and in techniques of classroom management with other team members | ______ | ______ |
| 11. Conducting general team meetings | ______ | ______ |
| 12. Planning with special subject teachers | ______ | ______ |
| 13. Coordinating audio-visual aids | ______ | ______ |
| 14. Planning conferences with teachers and parents | ______ | ______ |
| 15. Scheduling field trips and utilization of community and professional personnel | ______ | ______ |
| 16. Ordering instructional materials | ______ | ______ |
| 17. Ordering tests | ______ | ______ |
| 18. Distributing instructional materials | ______ | ______ |
| 19. Distributing tests | ______ | ______ |

| | Full Responsibility | Partial Responsibility |
|---|---|---|
| 20. Assuming responsibility for parent conference materials | ______ | ______ |
| 21. Handling discipline problems for other teachers | ______ | ______ |
| 22. Providing in-service training to others | ______ | ______ |
| 23. Others (Please Specify) | ______ | ______ |
| ____________________ | | |
| ____________________ | | |
| ____________________ | | |

IV. As you see the role of the coordinator, which of the above duties do you feel should be included? List by number.

V. Which of the listed duties should be handled by someone else? By whom? List by number.

VI. Is released time providing an opportunity for you to function at a higher professional level? What duties that you perform do you consider of a higher professional level?

VII. If you were to now try to create more levels of instruction in any of the nongraded subjects, what problems would confront you? Please be specific.

VIII. Do you feel that your cycle has enough personnel to handle a non-graded program? If no, what other personnel are necessary?

IX. Do you feel that the materials are now adequate for individualizing the program? If no, what kinds of materials are needed? Please be specific.

X. How do you now decide whether a child should move to the next level?

XI. Do you feel the method you are now using for moving a child to the next level is adequate? If no, what other information or criteria do you need for making your decision?

XII. Please describe the strengths of your program as it now exists.

XIII. Are there any areas in which you would like more training, advice, or other support?

XIV. Please use the back of this questionnaire for any other comments you care to make.

# APPENDIX C

48-49

## TABLE C-1

### Primary Cycle Progress Patterns
### Crescent School (N = 454)

| Reading |  |  | Arithmetic |  |  | Spelling |  |  |
|---|---|---|---|---|---|---|---|---|
| Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| 1-4 | 3 | 00.7 | 1-4 | 20 | 04.4 | 1-2 | 27 | 10.4 |
| 1-5 | 8 | 01.8 | 1-4 | 23 | 05.1 | 1-4 | 28 | 10.8 |
| 1-6 | 9 | 02.0 | 4-8 | 34 | 07.5 | 1-4 | 29 | 11.2 |
| 1-6 | 7 | 01.5 | 5-8 | 24 | 05.3 | 1-6 | 27 | 10.4 |
| 1-6 | 8 | 01.8 | 5-8 | 27 | 05.9 | 1-7 | 27 | 10.4 |
| 1-7 | 8 | 01.8 | 5-8 | 31 | 06.8 | 4-7 | 15 | 05.8 |
| 1-7 | 4 | 00.9 | 5-8 | 32 | 07.0 | 4-9 | 2 | 00.8 |
| 1-8 | 8 | 01.8 | 8-10 | 5 | 01.1 | 7-12 | 14 | 05.4 |
| 1-9 | 4 | 00.9 | 8-10 | 6 | 01.3 | 7-12 | 7 | 02.7 |
| 1-11 | 16 | 03.5 | 8-10 | 5 | 01.1 | 7-12 | 35 | 13.5 |
| 2-7 | 5 | 01.1 | 8-10 | 10 | 02.2 | 7-12 | 29 | 11.2 |
| 2-12 | 30 | 06.6 | 8-11 | 5 | 01.1 | 7-15 | 19 | 07.3 |
| 4-9 | 9 | 02.0 | 8-11 | 7 | 01.5 |  |  |  |
| 4-10 | 11 | 02.4 | 8-11 | 10 | 02.2 |  |  |  |
| 4-12 | 11 | 02.4 | 8-12 | 16 | 03.5 |  |  |  |
| 5-7 | 11 | 02.4 | 8-12 | 3 | 00.7 |  |  |  |
| 5-8 | 11 | 02.4 | 8-12 | 4 | 00.9 |  |  |  |
| 7-10 | 12 | 02.6 | 8-12 | 9 | 02.0 |  |  |  |
| 7-10 | 3 | 00.7 | 8-12 | 5 | 01.1 |  |  |  |
| 7-10 | 9 | 02.0 | 8-12 | 8 | 01.8 |  |  |  |
| 7-12 | 12 | 02.6 | 8-12 | 8 | 01.8 |  |  |  |
| 9-12 | 7 | 01.5 | 8-12 | 10 | 02.2 |  |  |  |
| 10-14 | 25 | 05.5 | 9-10 | 2 | 00.4 |  |  |  |
| 10-15 | 8 | 01.8 | 9-11 | 2 | 00.4 |  |  |  |
| 10-16 | 21 | 04.6 | 9-12 | 12 | 02.6 |  |  |  |
| 11-15 | 9 | 02.0 | 9-12 | 4 | 00.9 |  |  |  |
| 11-16 | 11 | 02.4 | 9-12 | 5 | 01.1 |  |  |  |
| 11-17 | 6 | 01.3 | 9-14 | 26 | 05.7 |  |  |  |
| 11-18 | 10 | 02.2 | 9-14 | 6 | 01.3 |  |  |  |
| 12-17 | 4 | 00.9 | 11-13 | 21 | 04.6 |  |  |  |
| 12-18 | 12 | 02.6 | 12-15 | 36 | 08.8 |  |  |  |
| 12-19 | 11 | 02.4 | 13-16 | 38 | 08.3 |  |  |  |
| 14-16 | 8 | 01.8 |  |  |  |  |  |  |
| 14-18 | 8 | 01.8 |  |  |  |  |  |  |
| 17-19 | 12 | 02.6 |  |  |  |  |  |  |
| 17-19 | 10 | 02.2 |  |  |  |  |  |  |
| 17-20 | 12 | 02.6 |  |  |  |  |  |  |
| 17-21 | 10 | 02.3 |  |  |  |  |  |  |
| 17-24 | 7 | 01.5 |  |  |  |  |  |  |
| 18-24 | 15 | 03.3 |  |  |  |  |  |  |
| 19-22 | 12 | 02.6 |  |  |  |  |  |  |
| 19-24 | 16 | 03.5 |  |  |  |  |  |  |
| 19-25 | 12 | 02.6 |  |  |  |  |  |  |
| Total 43 | 454 | 99.8* | 32 | 454 | 100.6* | 12 | 259 | 99.9* |

* Rounding error

## TABLE C-2

### Primary Cycle Progress Patterns
### Homewood School (N = 304)

| Reading | | | Arithmetic | | | School | | |
|---|---|---|---|---|---|---|---|---|
| Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| 1-4 | 10 | 03.3 | 1-6 | 21 | 06.9 | 1-2 | 19 | 10.9 |
| 1-5 | 9 | 03.0 | 1-6 | 4 | 01.3 | 1-6 | 26 | 14.9 |
| 1-6 | 4 | 01.3 | 1-7 | 4 | 01.3 | 1-6 | 9 | 05.1 |
| 1-7 | 4 | 01.3 | 1-7 | 5 | 01.6 | 1-8 | 31 | 17.7 |
| 1-8 | 4 | 01.3 | 1-8 | 5 | 01.6 | 7-6 | 15 | 08.6 |
| 1-9 | 10 | 03.3 | 1-8 | 12 | 03.9 | 7-7 | 8 | 04.6 |
| 4-7 | 3 | 01.0 | 1-8 | 14 | 04.6 | 7-8 | 3 | 01.7 |
| 4-8 | 3 | 01.0 | 1-8 | 7 | 02.3 | 7-12 | 35 | 20.0 |
| 4-8 | 4 | 01.3 | 5-8 | 16 | 05.3 | 7-15 | 29 | 16.6 |
| 4-9 | 6 | 02.0 | 5-8 | 11 | 03.6 | | | |
| 4-9 | 6 | 02.0 | 5-8 | 18 | 05.9 | | | |
| 4-10 | 10 | 03.3 | 5-8 | 2 | 00.6 | | | |
| 4-10 | 10 | 03.3 | 9-11 | 27 | 08.9 | | | |
| 4-10 | 10 | 03.3 | 9-12 | 29 | 09.5 | | | |
| 4-12 | 11 | 03.6 | 9-13 | 35 | 11.5 | | | |
| 4-12 | 11 | 03.6 | 13-14 | 15 | 04.9 | | | |
| 10-12 | 10 | 03.3 | 13-14 | 21 | 06.9 | | | |
| 10-13 | 13 | 04.3 | 13-15 | 30 | 09.9 | | | |
| 10-14 | 6 | 02.0 | 13-15 | 28 | 09.2 | | | |
| 10-15 | 9 | 03.0 | | | | | | |
| 12-17 | 22 | 07.2 | | | | | | |
| 12-19 | 10 | 03.3 | | | | | | |
| 13-14 | 11 | 03.6 | | | | | | |
| 13-16 | 6 | 02.0 | | | | | | |
| 13-18 | 17 | 05.6 | | | | | | |
| 13-19 | 12 | 03.9 | | | | | | |
| 14-16 | 8 | 02.6 | | | | | | |
| 15-18 | 6 | 02.0 | | | | | | |
| 16-18 | 8 | 02.6 | | | | | | |
| 16-21 | 11 | 03.6 | | | | | | |
| 16-21 | 4 | 01.3 | | | | | | |
| 17-22 | 24 | 07.9 | | | | | | |
| 18-21 | 11 | 03.6 | | | | | | |
| Total 33 | 304 | 100.7* | 19 | 304 | 99.7* | 9 | 175 | 100.1* |

* Rounding error

## TABLE C-3

### Primary Cycle Progress Patterns
### Letsche School (N = 222)

| Reading | | | Arithmetic[1] | | | Spelling[1] | | |
|---|---|---|---|---|---|---|---|---|
| Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| 1-4 | 11 | 05.0 | | | | | | |
| 1-4 | 2 | 00.9 | | | | | | |
| 1-5 | 7 | 03.2 | | | | | | |
| 2-7 | 10 | 04.5 | | | | | | |
| 2-7 | 12 | 05.4 | | | | | | |
| 2-8 | 7 | 03.2 | | | | | | |
| 2-9 | 12 | 05.4 | | | | | | |
| 2-9 | 6 | 02.7 | | | | | | |
| 4-5 | 2 | 00.9 | | | | | | |
| 4-12 | 10 | 04.5 | | | | | | |
| 6-10 | 10 | 04.5 | | | | | | |
| 7-15 | 4 | 01.8 | | | | | | |
| 8-15 | 27 | 12.2 | | | | | | |
| 8-15 | 4 | 01.8 | | | | | | |
| 9-13 | 11 | 05.0 | | | | | | |
| 10-18 | 15 | 06.8 | | | | | | |
| 10-19 | 28 | 12.6 | | | | | | |
| 14-21 | 4 | 01.8 | | | | | | |
| 15-23 | 15 | 06.8 | | | | | | |
| 16-21 | 11 | 05.0 | | | | | | |
| 17-21 | 2 | 00.9 | | | | | | |
| 17-24 | 10 | 04.5 | | | | | | |
| 22-24 | 2 | 00.9 | | | | | | |
| Total 23 | 222 | 100.3* | | | | | | |

[1] No data received

* Rounding error

# TABLE C-4

## Primary Cycle Progress Patterns
## Lincoln School (N = 233)

| Reading | | | Arithmetic | | | Spelling | | |
|---|---|---|---|---|---|---|---|---|
| Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| 2-4 | 6 | 02.6 | 5-7 | 25 | 10.7 | 1-4 | 11 | 08.7 |
| 2-5 | 11 | 04.7 | 5-8 | 30 | 12.9 | 1-4 | 25 | 19.7 |
| 2-5 | 8 | 03.4 | 5-9 | 33 | 14.2 | 1-6 | 10 | 07.9 |
| 4-6 | 6 | 02.6 | 7-10 | 28 | 12.0 | 1-6 | 21 | 16.5 |
| 4-7 | 7 | 03.0 | 8-11 | 27 | 11.6 | 1-6 | 5 | 03.9 |
| 4-7 | 6 | 02.6 | 9-12 | 6 | 02.3 | 7-11 | 26 | 20.5 |
| 4-8 | 10 | 04.3 | 9-12 | 19 | 08.1 | 7-13 | 29 | 22.9 |
| 4-8 | 3 | 01.3 | 10-13 | 10 | 04.3 | | | |
| 4-10 | 6 | 02.6 | 12-15 | 33 | 14.2 | | | |
| 4-10 | 9 | 03.9 | 13-16 | 22 | 09.4 | | | |
| 4-12 | 4 | 01.7 | | | | | | |
| 5-9 | 4 | 01.7 | | | | | | |
| 5-9 | 12 | 05.1 | | | | | | |
| 7-9 | 6 | 02.6 | | | | | | |
| 7-9 | 8 | 03.4 | | | | | | |
| 8-10 | 7 | 03.0 | | | | | | |
| 8-11 | 5 | 02.1 | | | | | | |
| 9-11 | 6 | 02.6 | | | | | | |
| 9-12 | 8 | 03.4 | | | | | | |
| 10-13 | 8 | 03.4 | | | | | | |
| 11-14 | 7 | 03.0 | | | | | | |
| 11-15 | 11 | 04.7 | | | | | | |
| 13-17 | 8 | 03.4 | | | | | | |
| 16-17 | 6 | 02.6 | | | | | | |
| 16-18 | 7 | 03.0 | | | | | | |
| 16-19 | 9 | 03.9 | | | | | | |
| 16-21 | 7 | 03.0 | | | | | | |
| 18-24 | 8 | 03.4 | | | | | | |
| 19-21 | 11 | 04.7 | | | | | | |
| 19-23 | 19 | 08.1 | | | | | | |
| Total 30 | 233 | 100.8* | 10 | 233 | 99.7* | 7 | 127 | 100.1* |

* Rounding error

## TABLE C-5

### Primary Cycle Progress Patterns
### Madison School (N = 168)

| | Reading | | | Arithmetic | | | Spelling | |
|---|---|---|---|---|---|---|---|---|
| | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| | 1-3 | 8 | 04.8 | 1-6 | 27 | 16.1 | 1-4 | 15 | 16.1 |
| | 1-6 | 8 | 04.8 | 1-8 | 27 | 16.1 | 1-6 | 18 | 19.3 |
| | 1-7 | 6 | 03.6 | 4-8 | 27 | 16.1 | 1-7 | 14 | 15.1 |
| | 4-6 | 8 | 04.8 | 5-7 | 24 | 14.3 | 1-8 | 22 | 23.7 |
| | 4-7 | 9 | 05.3 | 5-12 | 6 | 03.6 | 7-14 | 24 | 25.8 |
| | 4-8 | 8 | 04.8 | 9-12 | 23 | 13.7 | | | |
| | 4-9 | 7 | 04.2 | 13-16 | 31 | 20.2 | | | |
| | 4-9 | 11 | 06.5 | | | | | | |
| | 4-10 | 9 | 05.3 | | | | | | |
| | 4-11 | 1 | 00.6 | | | | | | |
| | 10-15 | 3 | 01.8 | | | | | | |
| | 12-15 | 10 | 06.0 | | | | | | |
| | 13-17 | 6 | 03.6 | | | | | | |
| | 13-18 | 12 | 07.1 | | | | | | |
| | 13-18 | 16 | 09.5 | | | | | | |
| | 13-18 | 12 | 07.1 | | | | | | |
| | 19-24 | 19 | 11.3 | | | | | | |
| | 19-24 | 6 | 03.6 | | | | | | |
| Total | 18 | 168 | 100.0 | 7 | 168 | 100.1* | 5 | 93 | 100.0 |

* Rounding error

## TABLE C-6

### Primary Cycle Progress Patterns
### McKelvy School (N=245)

| Reading | | | Arithmetic | | | Spelling | | |
|---|---|---|---|---|---|---|---|---|
| Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| 1-2 | 3 | 01.2 | 1-4 | 25 | 10.2 | 1-1 | 8 | 04.5 |
| 1-3 | 12 | 04.9 | 5-8 | 25 | 10.2 | 1-2 | 10 | 05.6 |
| 1-5 | 10 | 04.1 | 5-8 | 27 | 11.0 | 1-3 | 21 | 11.9 |
| 3-5 | 7 | 02.9 | 5-8 | 24 | 09.8 | 1-6 | 29 | 16.3 |
| 3-8 | 11 | 04.5 | 8-12 | 34 | 13.9 | 1-6 | 2 | 01.1 |
| 3-9 | 9 | 03.7 | 9-13 | 34 | 13.9 | 1-7 | 29 | 16.3 |
| 4-8 | 6 | 02.4 | 11-12 | 19 | 07.8 | 1-10 | 4 | 02.2 |
| 4-10 | 11 | 04.5 | 12-16 | 22 | 09.0 | 6-9 | 14 | 07.9 |
| 4-12 | 11 | 04.5 | 13-15 | 35 | 14.3 | 6-11 | 6 | 03.4 |
| 4-13 | 7 | 02.9 | | | | 7-12 | 16 | 09.0 |
| 5-12 | 10 | 04.1 | | | | 7-12 | 11 | 06.2 |
| 10-15 | 11 | 04.5 | | | | 7-12 | 14 | 07.9 |
| 11-13 | 7 | 02.9 | | | | 7-13 | 14 | 07.9 |
| 12-14 | 11 | 04.5 | | | | | | |
| 13-16 | 8 | 03.3 | | | | | | |
| 13-17 | 14 | 05.7 | | | | | | |
| 13-18 | 11 | 04.5 | | | | | | |
| 13-19 | 14 | 05.7 | | | | | | |
| 16-19 | 16 | 06.6 | | | | | | |
| 16-19 | 8 | 03.3 | | | | | | |
| 17-20 | 7 | 02.9 | | | | | | |
| 17-20 | 11 | 04.5 | | | | | | |
| 18-19 | 1 | 00.5 | | | | | | |
| 18-21 | 7 | 02.9 | | | | | | |
| 18-23 | 11 | 04.5 | | | | | | |
| 18-24 | 11 | 04.5 | | | | | | |
| Total 26 | 245 | 100.5* | 9 | 245 | 100.1* | 13 | 178 | 100.2* |

* Rounding error

## TABLE C-7

### Primary Cycle Progress Patterns
### Miller School (N = 275)

| Reading | | | Arithmetic | | | Spelling | | |
|---|---|---|---|---|---|---|---|---|
| Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Progress |
| 1-3 | 7 | 02.5 | 1-3 | 2 | 00.7 | 1-3 | 25 | 15.7 |
| 1-3 | 9 | 03.3 | 1-4 | 1 | 00.4 | 1-5 | 36 | 22.7 |
| 1-3 | 8 | 02.9 | 1-5 | 19 | 06.9 | 1-6 | 26 | 16.4 |
| 1-5 | 10 | 03.6 | 1-8 | 23 | 08.4 | 7-11 | 21 | 13.2 |
| 1-7 | 7 | 02.5 | 1-8 | 17 | 06.2 | 7-11 | 18 | 11.3 |
| 1-8 | 5 | 01.8 | 1-8 | 23 | 08.4 | 7-12 | 33 | 20.8 |
| 1-12 | 19 | 06.9 | 1-9 | 16 | 05.8 | | | |
| 2-7 | 4 | 01.4 | 5-9 | 34 | 12.4 | | | |
| 2-8 | 5 | 01.8 | 9-12 | 39 | 14.2 | | | |
| 5-7 | 5 | 01.8 | 9-12 | 25 | 09.1 | | | |
| 5-8 | 3 | 01.1 | 11-15 | 19 | 06.9 | | | |
| 5-9 | 2 | 00.7 | 13-15 | 29 | 10.5 | | | |
| 5-9 | 8 | 02.9 | 13-17 | 28 | 10.2 | | | |
| 5-9 | 4 | 01.4 | | | | | | |
| 5-10 | 8 | 02.9 | | | | | | |
| 5-12 | 1 | 00.4 | | | | | | |
| 8-11 | 8 | 02.9 | | | | | | |
| 8-12 | 2 | 00.7 | | | | | | |
| 9-11 | 6 | 02.2 | | | | | | |
| 10-15 | 15 | 05.5 | | | | | | |
| 10-15 | 8 | 02.9 | | | | | | |
| 10-16 | 33 | 12.0 | | | | | | |
| 11-16 | 2 | 00.7 | | | | | | |
| 11-17 | 15 | 05.5 | | | | | | |
| 12-16 | 2 | 00.7 | | | | | | |
| 13-16 | 9 | 03.3 | | | | | | |
| 13-18 | 15 | 05.5 | | | | | | |
| 16-18 | 9 | 03.3 | | | | | | |
| 16-18 | 8 | 02.9 | | | | | | |
| 16-20 | 6 | 02.2 | | | | | | |
| 16-20 | 7 | 02.5 | | | | | | |
| 16-20 | 4 | 01.4 | | | | | | |
| 19-23 | 21 | 07.6 | | | | | | |
| Total 33 | 275 | 99.7* | 13 | 275 | 100.1* | 6 | 159 | 100.1* |

* Rounding error

## TABLE C-8

### Primary Cycle Progress Patterns
### Vann School (N = 267)

| | Reading | | | Arithmetic | | | Spelling | | |
|---|---|---|---|---|---|---|---|---|---|
| | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| | 1-2 | 6 | 02.2 | 4-7 | 20 | 07.5 | 1-4 | 27 | 18.5 |
| | 1-4 | 11 | 04.1 | 4-8 | 27 | 10.1 | 1-8 | 29 | 19.9 |
| | 1-6 | 11 | 04.1 | 5-6 | 14 | 05.2 | 4-6 | 6 | 04.1 |
| | 1-7 | 9 | 03.4 | 5-6 | 24 | 09.0 | 7-12 | 26 | 17.8 |
| | 1-8 | 12 | 04.5 | 5-8 | 22 | 08.2 | 7-12 | 28 | 19.2 |
| | 4-8 | 9 | 03.4 | 9-11 | 25 | 09.4 | 7-14 | 30 | 20.5 |
| | 4-10 | 12 | 04.5 | 9-11 | 19 | 07.1 | | | |
| | 4-10 | 11 | 04.1 | 9-12 | 30 | 11.2 | | | |
| | 5-8 | 5 | 01.9 | 12-13 | 29 | 10.9 | | | |
| | 5-8 | 6 | 02.2 | 12-14 | 31 | 11.6 | | | |
| | 5-8 | 9 | 03.4 | 13-15 | 26 | 09.7 | | | |
| | 5-8 | 9 | 03.4 | | | | | | |
| | 5-9 | 7 | 02.6 | | | | | | |
| | 5-10 | 6 | 02.2 | | | | | | |
| | 5-11 | 14 | 05.2 | | | | | | |
| | 5-11 | 9 | 03.4 | | | | | | |
| | 7-11 | 6 | 02.2 | | | | | | |
| | 8-12 | 6 | 02.2 | | | | | | |
| | 8-13 | 12 | 04.5 | | | | | | |
| | 10-15 | 13 | 04.9 | | | | | | |
| | 10-17 | 12 | 04.5 | | | | | | |
| | 13-16 | 14 | 05.2 | | | | | | |
| | 14-16 | 16 | 06.0 | | | | | | |
| | 15-18 | 14 | 05.2 | | | | | | |
| | 16-18 | 13 | 04.9 | | | | | | |
| | 17-21 | 15 | 05.6 | | | | | | |
| Total | 26 | 267 | 99.8* | 11 | 267 | 99.9* | 6 | 146 | 100.0 |

* Rounding error

## TABLE C-9

### Primary Cycle Progress Patterns
### Weil School (N = 392)

| | Reading | | | Arithmetic | | | Spelling | | |
|---|---|---|---|---|---|---|---|---|---|
| | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent | Progress Patterns | No. | Percent |
| | 1-3 | 6 | 01.5 | 1-4 | 21 | 05.3 | 1-1 | 34 | 13.4 |
| | 1-5 | 8 | 02.0 | 4-7 | 29 | 07.4 | 1-3 | 12 | 04.7 |
| | 1-5 | 9 | 02.3 | 5-7 | 12 | 03.1 | 1-4 | 16 | 06.3 |
| | 1-12 | 8 | 02.0 | 5-8 | 19 | 04.8 | 1-5 | 20 | 07.9 |
| | 1-13 | 9 | 02.3 | 5-8 | 30 | 07.7 | 1-6 | 8 | 03.2 |
| | 3-8 | 12 | 03.1 | 7-10 | 9 | 02.3 | 1-6 | 31 | 12.3 |
| | 3-9 | 7 | 01.8 | 7-11 | 18 | 04.6 | 1-8 | 22 | 08.7 |
| | 3-11 | 9 | 02.3 | 8-12 | 31 | 07.9 | 7-12 | 74 | 29.2 |
| | 3-12 | 14 | 03.6 | 9-12 | 32 | 08.2 | 7-12 | 36 | 14.2 |
| | 3-12 | 11 | 02.8 | 9-12 | 35 | 08.9 | | | |
| | 3-13 | 4 | 01.0 | 12-12 | 24 | 06.1 | | | |
| | 4-9 | 4 | 01.0 | 12-12 | 34 | 08.7 | | | |
| | 4-12 | 25 | 06.4 | 13-14 | 38 | 09.7 | | | |
| | 5-9 | 7 | 01.8 | 13-14 | 30 | 07.7 | | | |
| | 8-10 | 6 | 01.5 | 13-18 | 30 | 07.7 | | | |
| | 8-12 | 6 | 01.5 | | | | | | |
| | 8-12 | 8 | 02.0 | | | | | | |
| | 10-13 | 5 | 01.3 | | | | | | |
| | 10-14 | 15 | 03.8 | | | | | | |
| | 10-15 | 11 | 02.8 | | | | | | |
| | 10-15 | 9 | 02.3 | | | | | | |
| | 10-16 | 5 | 01.3 | | | | | | |
| | 11-15 | 15 | 03.8 | | | | | | |
| | 11-16 | 10 | 02.6 | | | | | | |
| | 12-18 | 17 | 04.3 | | | | | | |
| | 13-16 | 4 | 01.0 | | | | | | |
| | 13-17 | 10 | 02.6 | | | | | | |
| | 13-19 | 15 | 03.8 | | | | | | |
| | 13-19 | 16 | 04.1 | | | | | | |
| | 14-15 | 15 | 03.8 | | | | | | |
| | 15-16 | 9 | 02.3 | | | | | | |
| | 15-16 | 8 | 02.0 | | | | | | |
| | 17-18 | 12 | 03.1 | | | | | | |
| | 17-20 | 9 | 02.3 | | | | | | |
| | 18-20 | 22 | 05.6 | | | | | | |
| | 18-21 | 5 | 01.3 | | | | | | |
| | 19-24 | 15 | 03.8 | | | | | | |
| | 19-24 | 12 | 03.1 | | | | | | |
| Total | 38 | 392 | 99.9* | 15 | 392 | 100.1* | 9 | 253 | 99.9* |

* Rounding error

## 7. ORIENTATION FOLLOW-UP SATURDAY MORNING WORKSHOPS

## 7. ORIENTATION FOLLOW-UP SATURDAY MORNING WORKSHOPS

### Introduction

The following statement is contained in the minutes of the 1965 meeting of the Pittsburgh Board of Public Education:

> Many new teachers have requested meetings after six or seven weeks of classroom experience so that they can discuss problems more adequately. To meet this request a Saturday morning meeting will be held approximately one month after the original orientation.

The intent here seems obvious: the focus is to be that of in-service training rather than orientation sessions.*

On the basis of the Board's directive a series of workshops was begun on November 5, 1966 and conducted by eight instructional departments: Elementary Education, English, Library, Mathematics, Music, Physical Education, Social Studies, and Special Education. More specific information about these workshops is given in Table 1.

---

*On this distinction, cf. M. Gilman, "Problems and Progress in Staff Training," Crime and Delinquency, XII (1966), p. 255.

## TABLE 1

Date and Number of Participants in 1966-1967 Workshops

| Department | Date | No. of Teachers | No. of Leaders | No. of Sections |
|---|---|---|---|---|
| Elementary Education | Nov. 19 | 111 | 19 | 19 |
| English | Nov. 19 | 34 | 2 | 1 |
| Library | Dec. 3 | 12 | 1 | 1 |
| Mathematics | Nov. 19 | 25 | 1 | 1 |
| Music | Dec. 10 | 61 | 7 | 4 |
| Physical Education | Jan. 14 | 35 | 6 | 4 |
| Social Studies | Nov. 5 | 17 | 1 | 1 |
| Special Education | Feb. 18 | 23 | 2 | 2 |

It should be noted that the dates of the workshops range over a three month period, the last workshop occurring five months after the beginning of school in the fall.

Each of these workshops was held for a three-hour period on a Saturday morning and was planned and conducted by the central office personnel responsible for the supervision of instruction in the subject covered. Specific objectives, which became the basis for the morning's activities, were developed for each workshop. In addition, all participating teachers were asked to complete a questionnaire designed and administered by the Office of Research.

There were, however, two important modifications made in these workshops as a result of suggestions coming from the 1966 evaluation of similar workshops. The number of participating departments was increased from four to eight, with a 67 percent increase in the number of teachers from 213 to 318. This year the workshops were conducted exclusively for new teachers whereas only 45 percent of the previous year's participants were beginning teachers.

## Statement of the Problem

The problem for evaluation was to judge the effectiveness of the Saturday morning workshops for new teachers--by noting where the program had succeeded in aiding new teachers and by locating unsatisfactory areas so that they might be improved at future workshops.

## Method

The instrument for evaluating the present series of workshops was a questionnaire, attached to this report as Appendix A, similar to the one used for the 1966 workshops. Examination of the questionnaire will show that it is divided into two parts: Part I, 17 forced-choice items related to the workshop, each with four response alternatives (Strongly Agree, Agree, Disagree, and Strongly Disagree), and Part II, three open-end questions permitting teachers to comment on the aspects of the workshop they considered best covered, those which they considered inadequately covered, and those which they thought would be the most helpful to them in their own classrooms. All 318 participants returned their questionnaires, although not every respondent answered every question.

The analysis was undertaken to provide an aggregate appraisal of the eight workshops. This was done for two reasons: (1) the interworkshop differences, as recorded, were negligible, and (2) itemized reports on each of the workshops had already been made available to the appropriate workshop coordinators. Questionnaire responses were analyzed in the following manner:

1. Responses to each of the forced-choice items were tabulated, and general totals were obtained.
2. The items were then grouped into four clusters, as is indicated in Table 2, making an analysis of categories common to all workshops possible. The original data are presented in categorized form in Appendix B.
3. Each cluster of items was analyzed to determine the teachers' attitudes to the various aspects of the workshops.
4. Replies to the three open-end questions were analyzed to determine the strengths, weaknesses, and potential usefulness of the workshops. The responses were then compared to the specific objectives of the workshops as stated by the program staff.

## Results

In the category of "Difficulty," the responses were distributed almost exclusively (above 97 percent) among the favorable alternatives, showing either a favorable response or a strongly favorable response. However, the respondents expressed the attitude that, while the subject

TABLE 2
Clustering of Questionnaire Items

| CATEGORY | ITEMS | |
|---|---|---|
| | ITEM NO. | STATEMENT |
| Level of Difficulty | 1 | Frequently the level at which the material of this workshop was presented was too difficult for me. |
| | 7 | While the content of this workshop was not difficult, the instructors tended to make it so, i.e., they unnecessarily complicated the workshop. |
| | 10 | By and large, those who conducted the workshop made the content as easy to understand as possible. |
| Content | 4 | While the material covered in this workshop is good to know, it has little to do with being a teacher in my field. |
| | 5. | Certain topics in this workshop would not be missed if they were left out. |
| | 6 | More time should be devoted to covering the material of this workshop. |
| | 12 | This workshop offered a convenient way of getting material that could have been obtained through other methods. |
| | 13 | Most of the material covered in this workshop was already known to me. |
| Quality of the Workshop | 2 | This workshop is worth the time and effort it required. |
| | 9 | Time spent on this workshop could have been better devoted to some other activity. |
| | 11 | The quality of this workshop left something to be desired. |
| | 15 | There are many ways in which this workshop could have been improved. |
| | 17 | If a similar workshop were to be offered again, I would give up a Saturday morning to attend. |
| Professional Growth | 3 | Most new teachers in my field could profit by taking a workshop like this one. |
| | 8 | Workshops such as this one are actually an investment in one's future. |
| | 14 | This workshop is essential to the teacher who wants to fulfill his obligation to his profession and to his pupils. |
| | 16 | This workshop will be helpful to me in my everyday work. |

matter was not too difficult, the material was not presented as clearly as was possible. This is the case if the distribution of responses for items 7 and 10 (or the average of the two) is significantly different from the distribution for item 1. Inspection of Appendix B shows that this is the case for all except the Library and Special Education sessions. This indicates that, although the respondents reported the sessions satisfactory with regard to their difficulty, they generally felt that the clarity of presentation was less than satisfactory.

In the category of "Content," the responses exhibited greater variance, possibly reflecting less unanimity on the part of the respondents as to the value of the level of content. The responses tended to cluster between approval and disapproval, with a negligible number of strong positive or negative reactions.

The third category was the overall "Quality of the Workshop." Here the responses tended to cluster about the favorable level, shading from strongly favorable into the unfavorable. It must be noted that the respondents of all but the Library and Special Education sections seemed to doubt whether the workshop was worth the expenditure of a Saturday morning.

In the category of "Professional Growth," distributions of responses were similar to those in the category of "Difficulty." Excluding the Elementary Education, English, and Music sessions, over 95 percent of the responses were favorable. In those three sessions, favorable responses exceeded 88 percent of the total.

With reference to the distinction between in-service training and orientation sessions drawn earlier, it seems the participants found the workshops to be "orientation sessions." When we examine the responses to questions 3 and 14, we see that the former can be interpreted as an indication that the sessions were perceived as orientation sessions; the latter, an indication that they were perceived as in-service training sessions.

The total distribution of responses over these two items across all sessions was as follows:

| | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| Item 3 | 5 | 12 | 169 | 132 |
| Item 14 | 5 | 60 | 151 | 99 |

The null hypothesis is that there is no significant difference between the distributions, especially between the "disagree" and "strongly agree" category. As the "agree" category was the modal value for both distributions, a directional test of the hypothesis should indicate that responses in the "disagree" category will be greater for item 14 and responses in the "strongly agree" category will be greater for item 3. The chi-square found significant differences at a level of $P < .001$.

This means that, contrary to the Board's stipulation cited earlier, the workshops were perceived as being orientation sessions rather than in-service training sessions.

In analyzing the responses to open-end questions, no significant variation was found in the responses of teachers, although they had attended different workshops. Teaching techniques and lesson planning were considered the most adequately covered topics in all workshops, and the majority of teachers agreed that these two topics would also be the most useful to them in the classroom. The beginning teachers would have liked more time for group discussion, which they found highly informative. Inadequacies in the program were largely due, it was felt, to lack of time to cover issues more fully.

## Discussion and Conclusions

It should be kept in mind that the evaluation of this program was attitudinal. To be very accurate, the extent to which the program was perceived as addressing itself to the felt needs of the participants is the only consideration which this type of evaluation permits. It provides no measure of the program's contribution to the satisfaction of those needs nor can it determine whether the felt needs were appropriate. The obvious shortcomings of a once-administered attitudinal study have pointed out the need for a more comprehensive evaluation effort in the future.

With the above proviso in mind, we can say that the Orientation Follow-up Saturday Morning Workshops appeared moderately successful and that the objectives of individual workshops appear, in general, to have been met. If workshops are held in the future, time could be advantageously allocated to group discussion, which was repeatedly requested by the participants.

The evaluation raises a question as to the purpose of the workshops. The Pittsburgh Board of Public Education directed that in-service training be held; the participants perceived the workshops as orientation. The title of the program suggests a middle ground between the two. It is, therefore, unclear as to what the purpose of the sessions is.

# APPENDICES

10-11

# APPENDIX A

12-13

Office of Research

Date ____________________

## QUESTIONNAIRE FOR IN-SERVICE WORKSHOP FOR TEACHERS

To the teacher: Please do NOT sign your name to this sheet. Be as frank as possible in your replies, as it is only by such honest responses that the goals of this evaluation will be fulfilled. After completing the questionnaire, place it in the envelope, seal the envelope, and deposit it in the box before you leave.

Subject field________________________________Male___Female___

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Below are some statements about this workshop. Following each statement are four response choices. By placing a check in the appropriate space you can express the degree to which you agree or disagree with each item. THERE ARE NO RIGHT OR WRONG ANSWERS! Please indicate your agreement or disagreement with each item:

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

1. Frequently the level at which the material of this workshop was presented was much too difficult for me.
   ( ) Strongly agree
   ( ) Agree
   ( ) Disagree
   ( ) Strongly disagree

2. This workshop was worth the time and effort it required.
   ( ) Strongly agree
   ( ) Agree
   ( ) Disagree
   ( ) Strongly disagree

3. Most new teachers in my field could profit by taking a workshop like this one.
   ( ) Strongly agree
   ( ) Agree
   ( ) Disagree
   ( ) Strongly disagree

4. While the material covered in this workshop is good to know, it has little to do with being a teacher in my field.
   ( ) Strongly agree
   ( ) Agree
   ( ) Disagree
   ( ) Strongly disagree

5. Certain topics in this workshop would not be missed if they were left out.
   ( ) Strongly agree
   ( ) Agree
   ( ) Disagree
   ( ) Strongly disagree

Subject field________________________________ Male___ Female___

6. More time should be devoted to covering the material of this workshop.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

7. While the content of this workshop was not difficult, the instructors tended to make it so, i.e., they unnecessarily complicated the workshop.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

8. Workshops such as this one are actually an investment in one's future.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

9. Time spent on this workshop could have better been devoted to some other activity.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

10. By and large, those who conducted the workshop made the content as easy to understand as possible.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

11. The quality of this workshop left something to be desired.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

12. This workshop offered a convenient way of getting material that could have been obtained through other methods.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

13. Most of the material covered in this workshop was already known to me.
( ) Strongly agree ( ) Disagree
( ) Agree ( ) Strongly disagree

Subject field______________________________Male___Female___

14. This workshop is essential to the teacher who wants to fulfill his obligation to his profession and to his pupils.
( ) Strongly agree
( ) Agree
( ) Disagree
( ) Strongly disagree

15. There are many ways in which this workshop could have been improved.
( ) Strongly agree
( ) Agree
( ) Disagree
( ) Strongly disagree

16. This workshop will be helpful to me in my everyday work.
( ) Strongly agree
( ) Agree
( ) Disagree
( ) Strongly disagree

17. If a similar workshop were to be offered again, I would give up a Saturday morning to attend.
( ) Strongly agree
( ) Agree
( ) Disagree
( ) Strongly disagree

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Everyone who participates in an in-service workshop has certain expectations concerning it and what he expects to get out of it. Think back to the time when you were first aware that you would attend this workshop, and try to recall what you expected to get out of it.

What aspects of the workshop do you think were particularly well covered? (Be specific)

______________________________________________________________
______________________________________________________________
______________________________________________________________

What aspects of the workshop do you feel were inadequately covered? (Be specific)

______________________________________________________________
______________________________________________________________
______________________________________________________________

What topics covered in this workshop do you think will be most useful to you in your own classroom?

______________________________________________________________
______________________________________________________________
______________________________________________________________

# APPENDIX B

18-19

## Explanation of Charts

Each chart on the following pages presents the frequency distribution of responses for each of the four categories. The four response alternatives, ranging from "Strongly Disagree" to "Strongly Agree," are listed at the bottom of each chart. The numbers of particular questions which comprise the category are listed to the left of each block. The numbers refer to the specific items in the questionnaire (see Appendix A).

It should be noted that some of the items are stated negatively. For these, the distributions are reversed. The reader is referred back to Appendix A for the statement of the items.

# Level of Difficulty

Elementary Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 1 | 1 | 56 | 58 |
| 1 | 0 | 0 | 33 | 78 |
| 7 | 2 | 5 | 62 | 46 |

Music

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 0 | 2 | 35 | 24 |
| 1 | 0 | 1 | 22 | 38 |
| 7 | 1 | 0 | 30 | 30 |

English

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 0 | 1 | 17 | 16 |
| 1 | 0 | 2 | 8 | 24 |
| 7 | 2 | 0 | 15 | 17 |

Social Studies

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 0 | 1 | 12 | 4 |
| 1 | 0 | 0 | 3 | 14 |
| 7 | 0 | 0 | 3 | 14 |

Library

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 0 | 0 | 6 | 6 |
| 1 | 0 | 0 | 7 | 5 |
| 7 | 0 | 0 | 6 | 6 |

Physical Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 0 | 1 | 10 | 23 |
| 1 | 1 | 1 | 9 | 24 |
| 7 | 0 | 1 | 17 | 17 |

Math

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 0 | 0 | 11 | 10 |
| 1 | 0 | 0 | 3 | 18 |
| 7 | 0 | 0 | 7 | 14 |

Special Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 10 | 0 | 0 | 2 | 21 |
| 1 | 0 | 0 | 4 | 19 |
| 7 | 1 | 0 | 8 | 14 |

Responses

## Content

Elementary Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 7 | 41 | 64 | 2 |
| 13 | 5 | 39 | 58 | 10 |
| 4 | 1 | 4 | 58 | 52 |
| 5 | 5 | 46 | 48 | 16 |
| 6 | 9 | 54 | 48 | 2 |

English

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 4 | 8 | 19 | 2 |
| 13 | 1 | 11 | 19 | 3 |
| 4 | 1 | 3 | 14 | 16 |
| 5 | 3 | 15 | 12 | 4 |
| 6 | 8 | 15 | 9 | 1 |

Library

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 2 | 4 | 5 | 1 |
| 13 | 0 | 5 | 5 | 2 |
| 4 | 1 | 0 | 0 | 6 |
| 5 | 0 | 3 | 6 | 3 |
| 6 | 2 | 4 | 6 | 0 |

Math

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 7 | 1 | 11 | 2 |
| 13 | 1 | 9 | 9 | 2 |
| 4 | 0 | 0 | 9 | 12 |
| 5 | 1 | 7 | 12 | 1 |
| 6 | 0 | 8 | 12 | 1 |

Music

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 1 | 28 | 31 | 1 |
| 13 | 3 | 27 | 25 | 6 |
| 4 | 0 | 3 | 30 | 28 |
| 5 | 4 | 15 | 34 | 8 |
| 6 | 8 | 30 | 19 | 4 |

Social Studies

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 0 | 6 | 10 | 0 |
| 13 | 0 | 6 | 11 | 0 |
| 4 | 0 | 0 | 7 | 10 |
| 5 | 0 | 5 | 11 | 1 |
| 6 | 2 | 12 | 3 | 0 |

Physical Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 2 | 11 | 20 | 1 |
| 13 | 0 | 14 | 21 | 0 |
| 4 | 0 | 0 | 17 | 18 |
| 5 | 1 | 14 | 20 | 0 |
| 6 | 5 | 18 | 11 | 0 |

Special Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 12 | 1 | 10 | 12 | 0 |
| 13 | 0 | 11 | 9 | 1 |
| 4 | 0 | 1 | 11 | 11 |
| 5 | 1 | 7 | 14 | 1 |
| 6 | 2 | 10 | 9 | 1 |

**Responses**

## Quality

Elementary Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 3 | 5 | 75 | 32 |
| 17 | 3 | 11 | 69 | 30 |
| 9 | 0 | 16 | 75 | 23 |
| 11 | 5 | 23 | 66 | 21 |
| 15 | 8 | 50 | 51 | 5 |

Music

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 2 | 4 | 35 | 20 |
| 17 | 1 | 5 | 41 | 14 |
| 9 | 0 | 6 | 36 | 19 |
| 11 | 2 | 17 | 29 | 13 |
| 15 | 3 | 35 | 20 | 2 |

English

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 0 | 1 | 17 | 16 |
| 17 | 0 | 0 | 21 | 13 |
| 9 | 1 | 4 | 21 | 8 |
| 11 | 2 | 9 | 14 | 9 |
| 15 | 3 | 19 | 12 | 0 |

Social Studies

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 0 | 0 | 9 | 8 |
| 17 | 0 | 1 | 9 | 7 |
| 9 | 0 | 4 | 7 | 6 |
| 11 | 0 | 4 | 9 | 1 |
| 15 | 0 | 9 | 8 | 0 |

Library

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 0 | 0 | 5 | 7 |
| 17 | 0 | 1 | 8 | 3 |
| 9 | 0 | 0 | 7 | 5 |
| 11 | 1 | 1 | 8 | 2 |
| 15 | 0 | 2 | 9 | 1 |

Physical Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 1 | 1 | 21 | 12 |
| 17 | 0 | 3 | 21 | 11 |
| 9 | 0 | 3 | 21 | 10 |
| 11 | 0 | 7 | 13 | 5 |
| 15 | 0 | 17 | 18 | 0 |

Math

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 0 | 1 | 12 | 8 |
| 17 | 0 | 0 | 11 | 10 |
| 9 | 0 | 3 | 11 | 7 |
| 11 | 0 | 3 | 13 | 5 |
| 15 | 1 | 12 | 7 | 1 |

Special Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 2 | 0 | 0 | 14 | 9 |
| 17 | 0 | 0 | 12 | 11 |
| 9 | 0 | 1 | 16 | 6 |
| 11 | 3 | 2 | 10 | 8 |
| 15 | 1 | 7 | 14 | 1 |

Responses

## Professional Growth

### Elementary Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 2 | 6 | 61 | 46 |
| 8 | 3 | 4 | 73 | 35 |
| 14 | 2 | 23 | 55 | 34 |
| 16 | 0 | 9 | 75 | 30 |

### Music

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 2 | 2 | 36 | 21 |
| 8 | 2 | 4 | 35 | 20 |
| 14 | 2 | 16 | 24 | 19 |
| 16 | 0 | 8 | 38 | 14 |

### English

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 0 | 1 | 16 | 17 |
| 8 | 0 | 3 | 16 | 15 |
| 14 | 1 | 8 | 17 | 8 |
| 16 | 1 | 2 | 25 | 6 |

### Social Studies

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 0 | 0 | 13 | 4 |
| 8 | 0 | 0 | 12 | 5 |
| 14 | 0 | 5 | 8 | 4 |
| 16 | 0 | 1 | 12 | 4 |

### Library

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 1 | 0 | 3 | 8 |
| 8 | 0 | 0 | 8 | 4 |
| 14 | 0 | 0 | 4 | 8 |
| 16 | 0 | 0 | 5 | 7 |

### Physical Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 0 | 1 | 20 | 14 |
| 8 | 0 | 2 | 19 | 14 |
| 14 | 0 | 3 | 19 | 11 |
| 16 | 0 | 0 | 26 | 8 |

### Math

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 0 | 1 | 11 | 9 |
| 8 | 1 | 0 | 15 | 5 |
| 14 | 0 | 4 | 12 | 5 |
| 16 | 0 | 0 | 15 | 6 |

### Special Education

| Question Number | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|
| 3 | 0 | 1 | 9 | 13 |
| 8 | 0 | 0 | 12 | 11 |
| 14 | 0 | 1 | 12 | 10 |
| 16 | 0 | 2 | 12 | 9 |

Responses

# 8. SAFETY EDUCATION PROGRAM

## 8. SAFETY EDUCATION PROGRAM

### Introduction

During the 1966-1967 school year, ESEA funds made possible the addition of an assistant supervisor to the Section on Safety Education. This increase in personnel permitted the expansion of safety education in the schools and a concomitant extension of pupil coverage. The specific duties of the new assistant supervisor included the following:

1. Organization of a more effective traffic safety program in the lower grades
2. Assistance to classroom teachers in safety instruction whenever and wherever appropriate
3. Supervision of school safety patrol operations, including assistance in training patrol sponsors and patrol members
4. Inspection and evaluation of school bus routes, particularly the location of stops and safe routes
5. Responsibility for student accident reporting and recommendations for accident prevention based on these reports
6. Conducting assemblies for junior high students on safety in hunting
7. Providing assistance to private schools upon request

### Statement of the Problem

The problem for evaluation was twofold: (1) to determine whether the addition of an assistant supervisor to the Section on Safety Education had affected the school safety education program, and (2) to help the supervisor of the section to develop a rationale for planning and self-evaluation of safety education programs.

## Method

To determine the effects of the addition of the assistant supervisor to the Section on Safety Education, the 1965-1966 and 1966-1967 annual reports for the section were compared.

The conceptual model developed by the program evaluator (see Appendix A) was used in developing a rationale for planning and self-evaluation of the safety education programs. In connection with the use of this model, the following activities were undertaken:

1. A five-year analysis of the accident reports published by the section was used to determine the major causes of accidents in the Pittsburgh Public Schools.
2. A series of interviews was held with the Supervisor of the Section on Safety Education to discuss the results of the above analysis. During these interviews, it was agreed that the Office of Research would do the following:
   a. Assist in testing the effectivness of the Safety Education Program by administering a safety quiz to a number of students at two schools
   b. Assist in revising the Student Accident Report Form (SS53A)

## Results

### Program Change

The data indicate that the addition of the assistant supervisor to the Section on Safety Education resulted in substantial changes in three areas of safety instruction: (1) safety instructional programs, (2) traffic planning surveys, and (3) publications.

Safety Instructional Programs. Six new instructional programs were established during the assistant supervisor's first year in the section: (1) Fire Prevention, (2) Individual Classroom, (3) Poison Prevention, (4) Puppet Show, (5) Safety Assembly, and (6) Student Bus Safety. The five programs previously in existence were also much expanded. Table 1 lists the 11 safety instructional programs with the grades covered, the number of schools that participated, and the number of students who attended each. A brief description of these programs is included in Appendix B.

TABLE 1

Safety Instructional Programs
1966-1967

| Name of Program | Grades Covered | No. of Schools Participating | No. of Students Attending |
|---|---|---|---|
| Fire Patrol | All Grades | 25 | 5,344 |
| Fire Prevention | All Grades | 10 | 2,400 |
| Highway Safety | Senior High | 7 | 4,200 |
| Individual Classroom | K-4 | 38 | 5,700 |
| Poison Prevention | K-4 | 8 | 1,100 |
| Puppets | Primary | 35 | 11,530 |
| Safety Assembly | Elementary | 21 | 3,150 |
| Safety Patrol Captains Camp | All Grades | 73 | 300 |
| Safety Patrol Meetings | All Grades | 29 | 825 |
| Student Bus Safety | All Grades | 4 | 600 |
| Traffic Signal Kit | K-3 | 5 | 375 |
| Total | | 255 | 35,524 |

Table 1 shows that the number of students covered by safety programs during the 1966-1967 school year was 35, 524. This figure compares favorably with the 22, 390 students who were covered in the 1965-1966 school year.

Traffic Planning Surveys. Table 2 is a comparison of the number of traffic planning surveys in the 1965-1966 and the 1966-1967 school years.

TABLE 2

A Comparison of the Number of Traffic Planning Surveys and Participating Schools in the 1965-1966 and the 1966-1967 School Years

| | 1965-1966 School Year | 1966-1967 School Year |
|---|---|---|
| Number of Surveys | 70 | 123 |
| Number of Participating Public Schools | 13 | 30 |
| Number of Participating Parochial Schools | 0 | 7 |

Table 2 shows that the number of traffic planning surveys and the number of participating schools increased in the 1966-1967 school year. For the first time this service was extended to seven parochial schools.

Publications. In addition to its regular publications (the Annual Accident Report and the Safety Education Bulletin), a monthly publication, Safety Patrol News, was put out for the first time. This newsletter gave information on ways to improve safety patrol operation and made pertinent announcements.

During the 1966-1967 school year, the Section on Safety Education was also able to make the Accident Report a biannual, rather than an annual, publication. This increased the possibility of program modification during the year.

## Program Planning and Evaluation

The Office of Research assisted the Section on Safety Education in this area by making the program staff aware of the need for planning and self-evaluation of their programs. The first step in this endeavor was to provide a meaningful analysis of five previous annual accident reports to determine the safety problems which needed special attention. Tables 3 and 4 show the number and incidence of accidents for girls and boys respectively for the years 1961 to 1966 inclusive.

As indicated by the tables, there is little fluctuation in the incidence of different accident categories for the five years. The first highest incidence in school accidents is in physical education programs, with the second being general school building accidents. Both of these areas are theoretically more controllable than other sources such as unorganized or miscellaneous activities in the school grounds. As expected, in spite of being high for both sexes, the incidence of accidents for boys is almost double that for girls.

Tables 5 and 6 present the average number of days lost per accident by girls and boys respectively for the years 1961-1966 inclusive.

## TABLE 3

### Number and Incidence of School-related Accidents among Girls for the Years 1961-1966 Inclusive

| Source of Accident | School Year<br>1961-1962 | | 1962-1963 | | 1963-1964 | | 1964-1965 | | 1965-1966 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | I | N | I | N | I | N | I | N | I |
| Physical Education | 235 | 6.8 | 222 | 6.2 | 228 | 6.3 | 268 | 7.3 | 273 | 7.5 |
| General Building | 221 | 6.4 | 171 | 4.8 | 180 | 5.0 | 188 | 5.2 | 215 | 5.9 |
| To and From School (Not Motor Vehicle) | 92 | 2.6 | 130 | 3.7 | 142 | 3.9 | 97 | 2.7 | 57 | 1.6 |
| Grounds Miscellaneous | 37 | 1.1 | 47 | 1.3 | 35 | 1.0 | 36 | 1.0 | 44 | 1.2 |
| Grounds Unorganized | 37 | 1.1 | 33 | 0.9 | 57 | 1.6 | 33 | 0.9 | 41 | 1.1 |
| Shops and Labs | 47 | 1.4 | 28 | 0.8 | 23 | 0.6 | 60 | 1.6 | 38 | 1.0 |
| To and From School (Motor Vehicle) | 24 | 0.7 | 22 | 0.6 | 41 | 1.1 | 22 | 0.6 | 14 | 0.4 |
| Special Activities | 6 | 0.2 | 5 | 0.1 | 5 | 0.1 | 1 | 0.02 | 7 | 0.2 |
| Intramural | 5 | 0.1 | 1 | 0.3 | 5 | 0.1 | 3 | 0.1 | 3 | 0.1 |
| Interscholastic | 0 | 0.0 | 2 | 0.1 | 0 | 0.0 | 1 | 0.02 | 3 | 0.1 |
| Total School Accidents | 704 | 20.2 | 661 | 18.6 | 716 | 19.8 | 709 | 19.4 | 695 | 19.0 |
| Total School Enrollment | 34,820 | | 35,622 | | 36.232 | | 36,513 | | 36,599 | |

N = Number of accidents

I = Incidence per thousand pupils = $\frac{N}{\text{Enrollment}} \times 1000$

## TABLE 4

### Number and Incidence of School-related Accidents among Girls for the Years 1961-1966 Inclusive

| Source of Accident | School Year |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  | 1961-1962 |  | 1962-1963 |  | 1963-1964 |  | 1964-1965 |  | 1965-1966 |  |
|  | N | I | N | I | N | I | N | I | N | I |
| Physical Education | 581 | 15.2 | 551 | 14.0 | 528 | 13.2 | 554 | 13.6 | 566 | 14.0 |
| General Building | 369 | 9.6 | 338 | 8.6 | 344 | 8.6 | 310 | 7.6 | 364 | 9.0 |
| To and From School (Not Motor Vehicle) | 151 | 3.9 | 164 | 4.2 | 131 | 3.3 | 131 | 3.2 | 90 | 2.2 |
| Grounds Miscellaneous | .65 | 1.7 | 75 | 1.9 | 85 | 2.1 | 67 | 1.6 | 81 | 2.0 |
| Grounds Unorganized | .97 | 2.5 | 77 | 2.0 | 143 | 3.6 | 112 | 2.8 | 116 | 2.9 |
| Shops and Labs | 153 | 4.0 | 172 | 4.4 | 164 | 4.1 | 176 | 4.3 | 142 | 3.5 |
| To and From School (Motor Vehicle) | .25 | 0.7 | 41 | 1.0 | 34 | 0.8 | 24 | 0.6 | 20 | 0.5 |
| Special Activities | .03 | 0.1 | 6 | 0.2 | 6 | 0.1 | 1 | 0.02 | 4 | 0.1 |
| Intramural | .27 | 0.7 | 18 | 0.5 | 18 | 0.5 | 18 | 0.44 | 28 | 0.7 |
| Interscholastic | 161 | 4.2 | 42 | 6.1 | 237 | 5.9 | 270 | 6.63 | 229 | 5.7 |
| Total School Accidents | 1632 | 42.6 | 1684 | 42.7 | 1690 | 42.1 | 1663 | 40.9 | 1640 | 40.5 |
| Total School Enrollment | 38,311 |  | 39,422 |  | 40,129 |  | 40,653 |  | 40,487 |  |

N = Number of accidents

I = Incidence per thousand pupils = $\frac{N}{\text{Enrollment}} \times 1000$

## TABLE 5

### Average Number of School Days Lost by Girls per Accident in the Years 1961 - 1966 Inclusive

| Source of Accident | School Year | | | | |
|---|---|---|---|---|---|
| | 1961-1962 | 1962-1963 | 1963-1964 | 1964-1965 | 1965-1966 |
| Physical Education | 0.92 | 0.62 | 0.89 | 0.92 | 0.91 |
| Building General | 0.66 | 0.97 | 0.90 | 0.86 | 0.84 |
| Interscholastic Sports | 0.00 | 0.25 | 0.00 | 0.00 | 0.67 |
| Shops and Labs | 0.23 | 0.50 | 0.85 | 0.27 | 0.16 |
| Grounds Unorganized | 1.07 | 0.76 | 0.90 | 1.15 | 0.68 |
| To and From School (Motor Vehicle) | 1.96 | 1.91 | 2.71 | 2.50 | 2.89 |
| Grounds Miscellaneous | 1.58 | 1.78 | 1.19 | 0.76 | 1.23 |
| Intramural Sports | 0.40 | 0.00 | 0.30 | 0.33 | 0.67 |
| To and From School (Not Motor Vehicle) | 0.92 | 1.38 | 1.20 | 1.30 | 1.47 |
| Special Activities | 0.92 | 1.00 | 1.80 | 0.00 | 1.14 |
| Total School Accidents | 0.90 | 0.99 | 1.07 | 0.95 | 0.94 |

## TABLE 6

### Average Number of School Days Lost by Boys per Accident in the Years 1961-1966 Inclusive

| Source of Accident | School Year | | | | |
|---|---|---|---|---|---|
| | 1961-1962 | 1962-1963 | 1963-1964 | 1964-1965 | 1965-1966 |
| Physical Education | 0.84 | 0.99 | 0.90 | 0.80 | 0.75 |
| Building General | 0.70 | 0.81 | 0.71 | 0.67 | 0.57 |
| Interscholastic Sports | 0.77 | 0.85 | 0.62 | 0.64 | 0.83 |
| Shops and Labs | 0.80 | 0.50 | 0.69 | 0.56 | 0.43 |
| Grounds Unorganized | 1.07 | 1.09 | 0.88 | 1.32 | 1.09 |
| To and From School (Motor Vehicle) | 3.12 | 1.93 | 2.71 | 1.60 | 1.30 |
| Grounds Miscellaneous | 0.77 | 1.06 | 0.66 | 1.04 | 0.78 |
| Intramural Sports | 0.78 | 0.64 | 0.42 | 1.11 | 0.75 |
| To and From School (Not Motor Vehicle) | 1.49 | 1.24 | 1.29 | 2.19 | 1.51 |
| Special Activities | 2.17 | 2.25 | 0.58 | 2.00 | 1.25 |
| Total School Accidents | 0.90 | 0.94 | 0.86 | 0.90 | 0.78 |

According to Tables 5 and 6, there is little fluctuation in the average number of days lost for different accident categories.

The above analysis led to the development of a priority index for different categories of school accidents. The index was designed to reflect both the incidence and the seriousness of the accident. The former was calculated per thousand pupils, and the latter was measured by the average number of days lost per accident. Tables 7 and 8 present the accident priority index for girls and boys respectively.

Using the accident severity index one can assign priorities to the different sources which produce school accidents. The use of such an index is necessary, but not sufficient to assign these priorities. Some of the other major conditions for the assignment of priorities are availability, accessibility, effectiveness, and the feasibility of regulatory resources* and techniques.

As the basic regulatory resources in safety education are instructional programs, the next step in planning and self-evaluation was to test the level of student awareness of safety regulations in the Pittsburgh Public Schools. A safety awareness test (see Appendix C) published in the September-October issue of School Safety was the instrument used for

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* Regulatory resources include manpower, material, and financial requirements for programs. These resources can be used to decrease the severity accident index by changing the incidence or the average number of days lost.

## TABLE 7

### Accident Priorities For Girls In the Pittsburgh Public Schools

| Source of Accident | 5 Year Incidence Average (1) | 5 Year Lost Time Average (2) | Severity Index [(1) x (2)] |
|---|---|---|---|
| Physical Education | 6.82 | .85 | 5.7970 |
| Building General | 5.46 | .84 | 4.5864 |
| To and From School (Not Motor Vehicle) | 2.90 | .92 | 2.6680 |
| Grounds Miscellaneous | 1.12 | 1.30 | 1.4560 |
| Grounds Unorganized | 1.12 | .91 | 1.0192 |
| Shops and Labs | 1.08 | .40 | .4320 |
| To and From School (Not Vehicle) | .68 | 2.39 | 1.6252 |
| Special Activities | .12 | .97 | .1164 |
| Intramural Sports | .08 | .34 | .0272 |
| Interscholastic Sports | .04 | .18 | .0072 |
| **All School Accidents** | 19.4 | .97 | 18.818 |

## TABLE 8

### Accident Priorities For Boys In the Pittsburgh Public Schools

| Source of Accident | 5 Year Incidence Average (1) | 5 Year Lost Time Average (2) | Severity Index [(1) x (2)] |
|---|---|---|---|
| Physical Education | 14.0 | .85 | 11.90 |
| Building General | 8.6 | .69 | 5.934 |
| To and From School (Not Motor Vehicle) | 3.3 | 1.54 | 5.082 |
| Grounds Miscellaneous | 1.8 | .86 | 1.548 |
| Grounds Unorganized | 2.7 | 1.09 | 2.943 |
| Shops and Labs | 4.0 | .59 | 2.360 |
| To and From School (Not Vehicle) | .72 | 2.13 | 1.5336 |
| Special Activities | .10 | 1.65 | .1650 |
| Intramural Sports | .54 | .74 | .3996 |
| Interscholastic Sports | .57 | .74 | .4218 |
| All School Accidents | 41.7 | .87 | 36.279 |

this purpose. Theoretically such a measure should reflect the effectiveness of safety instruction. Two public elementary schools suggested by the Supervisor of the Section on Safety Education because of their reputations for outstanding safety ratings and principals who are highly safety conscious were chosen for the test administration. One of these schools drew its students from a disadvantaged Negro neighborhood, the other from a middle-class white area. The results of the test were expected to reflect the difference in safety awareness of children from the two different backgrounds.

The test was administered to 403 pupils in the fifth and sixth grades at both schools. Classroom teachers assisted by a representative from the Office of Research and the assistant supervisor of the section administered the test. Students recorded their answers on special forms. The test is composed of 83 questions covering four safety areas: (1) School Safety, (2) Home Safety, (3) Sports Safety, and (4) Traffic Safety. Table 9 shows the average number of mistakes per pupil in each area for each school.

## TABLE 9

### Mean Errors per Pupil in the Safety Test Administered in Two Pittsburgh Public Elementary Schools

| Area of Test | Disadvantaged Negro School N = 207 | Middle-class White School N = 196 |
|---|---|---|
| School Safety | 0.27 | 0.14 |
| Home Safety | 3.50 | 1.96 |
| Sports Safety | 5.22 | 4.42 |
| Traffic Safety | 1.52 | 1.52 |
| Total Test | 10.51 | 7.77 |

The results presented in Table 9 show that pupils in the disadvantaged school made more errors in every area of the test than pupils in the middle-class school.

The next step was intercorrelating the aggregate means of both schools (assigning a value of 1 to the middle-class school and a value of 2 to the disadvantaged school). Table 10 shows the intercorrelation matrix of the aggregate means.

Based on the results of the intercorrelation matrix presented in Table 10, the following conclusions can be drawn:

1. There is no statistically significant correlation between the socioeconomic level of the student and his safety awareness level as measured by his scores on the safety test.
2. Scores in home safety are dependent on the reading level of the tested student, while the other areas of the test are not.

## TABLE 10

Intercorrelation Matrix (Aggregate Means)

| Variable | Grade | Number of Students | I. Q | Mean Reading Scores | Mean Citizen-ship Scores | Mean School Safety Scores | Mean Home Safety Scores | Mean Sports Safety Scores | Mean Traffic Safety Scores |
|---|---|---|---|---|---|---|---|---|---|
| Socio Economic Level | .26 | .28 | .73* | .62 | .34 | -.47 | -.78 | -.68 | -.80 |
| Grade | | -.16 | .17 | .72 | .24 | -.93 | -.78 | -.21 | -.42 |
| Number of Students | | | .41 | -.06 | .65 | -.74 | -.60 | -.04 | .38 |
| I. Q. | | | | .74* | .39 | -.71 | -.97* | -.73 | -.49 |
| Mean Reading Scores | | | | | .22 | -.70 | -.95* | -.83 | -.67 |
| Mean Citizenship Scores | | | | | | -1.00* | -.98* | .64 | .21 |
| Mean School Safety Scores | | | | | | | 1.00* | -1.00* | 0.00 |
| Mean Home Safety Scores | | | | | | | | 0.00 | 1.00* |
| Mean Sports Safety Scores | | | | | | | | | 1.00* |

* Denotes statistically significant correlation coefficients

3. The home safety and school safety awareness levels of the student as measured by the safety test are dependent on his school behavior as measured by his citizenship grade. This is not true in the areas of sports safety and traffic safety.

The next step in the analysis was to investigate the relationship between the safety awareness level and the safety rating of the two schools. The mean errors of the sixth grade on the safety test were used as an index for the school level of safety awareness. The safety rating was the expected incidence of accidents minus the actual incidence of accidents. The expected incidence was calculated on the basis of estimated exposure time per day: five hours for school safety, two hours for sports safety, and 10 hours for home safety.

A problem arose in that no accidents were reported in the disadvantaged school for the 1966-1967 school year. This raises a serious question as to the credibility of the reporting. Table 11 presents a comparison of the safety awareness level and the safety rating for the middle-class school.

TABLE 11

Relationship Between Safety Awareness and Safety Behavior at Middle-class School

| Safety Area | Mean Errors in Safety Test | Expected Incidence (1) | Actual Incidence (2) | Safety Rating (1) - (2) |
|---|---|---|---|---|
| Home Safety | 0.138 | 30.20 | 24.28 | 6.08 |
| School Safety | 1.960 | 15.10 | 15.50 | -0.40 |
| Sports Safety | 3.750 | 6.04 | 11.56 | -5.52 |

From Table 11, it is clear that the middle-class school had fewer home accidents and more sports accidents than expected. The difference between the expected and the actual school accidents is very slight--0.4 pupils per thousand. In correlating the mean errors in the three areas of the safety test with the safety ratings, the Spearman Rank Correlation Coefficient was -1.0, indicating a perfect negative relationship between the mean number of errors and the safety rating for each area. Based on this limited sample, it appears that the group results of the safety test can predict the safety rating of a middle-class school.

The third aspect of the planning and self-evaluation activities was to assist the Section on Safety Education in revising the Student Accident Report SS53A. The Supervisor of the Section on Safety Education felt that the old form was inadequate in certain areas when compared with the Standard Student Accident Report recommended by the National Safety Council. Certain features of this report form, as well as that of the State of Louisiana which is precoded for computer use, were incorporated into the revised form. A copy of the new form SS53A (Revised 1967) is included in Appendix D. This form is now in use, and evaluation of its effectiveness will be undertaken by the Section on Safety Education at the end of the 1967-1968 school year.

## Discussion and Conclusions

The goals of the evaluation, (1) to determine the effect of the addition of an assistant supervisor to the program staff, and (2) to aid the Supervisor of the Section on Safety Education in developing a rationale for planning and self-evaluation of the safety programs, appear to have been satisfactorily achieved. The previous analysis has shown that the addition to the program staff was associated with a marked increase in the magnitude of program activities. In regard to the second goal, because of changes in ESEA funding, the Office of Research is no longer responsible for evaluating the Safety Education Program. Despite this fact, the Supervisor of the Section on Safety Education has requested assistance in evaluating the effectiveness of the different programs. Further study of the effectiveness of these programs should be encouraged, especially in the area of physical education.

# APPENDICES

# APPENDIX A

# ELEMENTS OF THE SAFETY EDUCATION PROGRAM EVALUATION MODEL

The main components of this model are the following:

1. The Essential Variables are the elements of the behavioral pattern which are to be changed by implementing the program.
2. The Disturbance System is composed of the internal and external (in relation to the individual) factors and processes which cause, support, or promote the undesirable behavior pattern. Examples of internal factors are ignorance of safety regulations, the inability to understand safety regulations (reading comprehension level), or the inability to see or avoid safety hazards (blindness or deafness).
3. The Regulatory System is formed of actions and processes used to regulate the internal and external factors of the disturbance system which cause the undesirable behavior pattern.

The essential variables are a set of interrelated values on which a permissible limit is theoretically set by program staff. The effect of the disturbance system on the essential variables is to cause, support, or promote deviations beyond the permissible limits. The regulatory system is then directed toward keeping the values of the essential variables within their permissible limits.*

Applying this to safety education, the goal of the section should be to reduce all avoidable accidents to a minimum by regulating internal and/or external elements of the safety disturbance system. In this context, safety instructional programs are regulatory in nature and are directed toward the internal disturbance system, while traffic planning surveys are directed toward the external disturbance system.

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* Ashby, W.R., An Introduction to Cybernetics (New York, 1963), p. 197.

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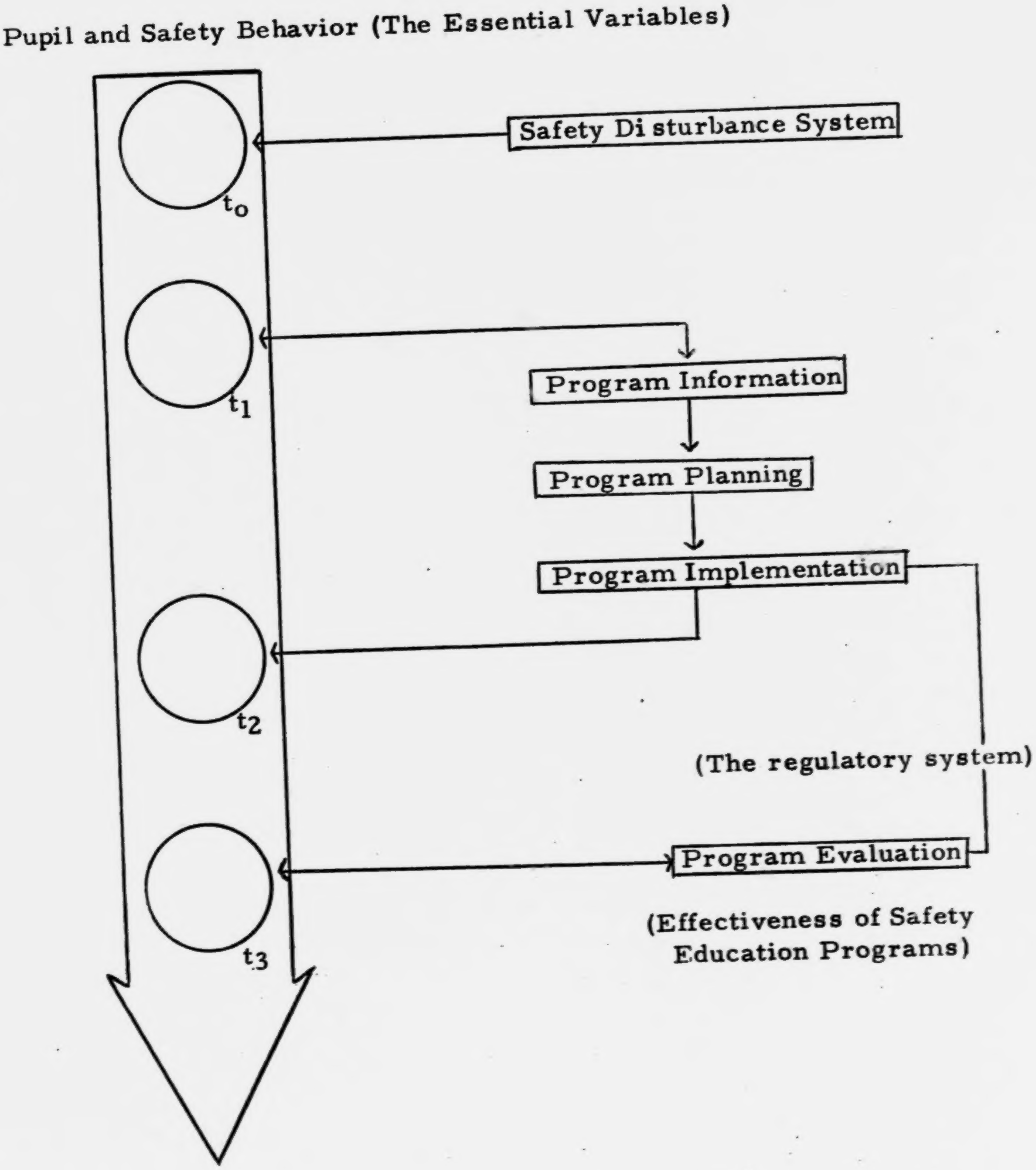
# SAFETY EDUCATION PROGRAM
# EVALUATION MODEL


Pupil and Safety Behavior (The Essential Variables)
Safety Disturbance System
$t_o$
$t_1$
Program Information
Program Planning
Program Implementation
$t_2$
(The regulatory system)
Program Evaluation
$t_3$
(Effectiveness of Safety Education Programs)

Evaluation activities undertaken by the Office of Research are written in parentheses.

# APPENDIX B

## DESCRIPTION OF SAFETY INSTRUCTION PROGRAMS

1. Fire Patrol Program (All Grades). This program consists of seven visits to each school during the semester. A variety of pertinent subjects are covered.

2. Fire Prevention Program (All Grades). Demonstrations of experimental fires are used for the purpose of creating an interest in the Junior Fire Patrols. Electricity, gas, and flammable liquids are covered. The children are made aware of fire hazards in the home.

3. Highway Safety Program (Senior High). This program consists of two meetings with the students. In the first a plastic surgeon lectures and shows colored slides of injuries incurred as the result of automobile accidents. He uses case studies to demonstrate the healing process of patients and to describe to students the degree to which physical characteristics can be repaired. In the second meeting a psychiatrist discusses the emotions of driving.

4. Individual Classroom (K-Grades 4). This program is similar to the Safety Assembly, but it develops a closer relationship between the presiding police officer and the students. The major emphasis is on crossing the street.

5. Poison Prevention (K-Grade 4). Poison in the home is covered thoroughly by lecture and is supplemented by a movie. The purpose of the program is to make children aware that many objects and substances in their environment can be harmful when taken orally. The necessary precautionary measures are described to the children. Pictures are used to supplement the program.

6. Puppets (Primary Grades). Sponsored by Bell Telephone Company, this program consists of animal puppets that teach each other good safety practices. Pedestrian safety, traffic safety, home safety, and the"Dangerous Stranger" idea are stressed. The puppets sing and recite poetry in developing their safety ideas.

7. Safety Assembly (Elementary). This program is designed to make children aware of the things that are unsafe in their environment. The role of the police officer is discussed. To and from school safety is stressed. A chalk talk is used for both entertainment and

as a teaching device. The movie One Little Indian is used to illustrate pedestrian safety. The idea of the "Dangerous Stranger" is used to conclude the assembly.

8. Safety Patrol Captains Camp. The purpose of this camp is to stimulate and improve safety patrol operations. It provides specific instruction for new Safety Patrol Captains. A three day camp session is held at Camp Kon-O-Kwee in Zelienople, Pennsylvania. All phases of patrols are covered: duties, patrolling operations, reports, bus patrols, care of equipment, and general safety.

9. Safety Patrol Meeting (All Grades). The purpose of this meeting is to emphasize the organization and operation of safety patrols. A police officer instructs the patrols on proper safety procedures. The movie How the Safety Patrols Operate is used. If time permits, a training session follows the instruction and film.

10. Student Bus Safety (All Grades). This program deals with all phases of bus safety. Students are instructed as to their responsibilities as bus passengers. The movie School Bus Patrol is used as a supplement to the instruction and practice demonstrations. School bus patrols are organized, and their duties are thoroughly covered.

11. Traffic Signal Kit (K-Grade 3). The Traffic Signal Kit is used to alert children to the traffic hazards they face as pedestrians. Accompanying the Signal Kit is a lesson plan and the movie Be Your Own Traffic Policeman. The Signal Kit contains the following equipment: a traffic light, stop signs, a railroad crossing, one way signs, traffic flags, and pictures of road markings. The kit is suited for individual classroom instruction.

# APPENDIX C

## SAFETY QUIZ

READ EACH OF THE FOLLOWING STATEMENTS CAREFULLY. IF YOU THINK THE STATEMENT IS TRUE, BLACKEN THE SPACE MARKED AFTER THE NUMBER ON THE ANSWER SHEET; IF YOU THINK THE STATEMENT IS FALSE, BLACKEN THE SPACE MARKED 2 AFTER THE NUMBER ON THE ANSWER SHEET. BE SURE TO MARK ALL YOUR ANSWERS ON THE SEPARATE ANSWER SHEET. CHECK TO BE SURE THE QUESTION YOU ARE ANSWERING HAS THE SAME NUMBER AS THE LINE YOU ARE USING ON THE ANSWER SHEET.

1. In case your regular exit is blocked during a fire, you should know what the next best one is.
2. When the fire bell rings, you should run out of school as fast as possible.
3. It is all right to run down the halls at school if the halls are empty and you are in a hurry.
4. If you are handing a knife or scissors to another person, you should hand it to him point first. That way you won't cut yourself.
5. If you must carry scissors, it's safest to carry them in a box or case.
6. You don't have to obey your teacher on a school trip because she can't tell you what to do outside of school.
7. If you are on a school trip, you should stay with your leader and not straggle behind.
8. You don't have to obey a patrol boy (or girl) if you are older than he is.
9. You can throw things in the school bus as long as none of them hit the driver.
10. Rough play is safe on the school bus if you are sure no one will be hurt.

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11. If you must stand in the school bus, you should hold on firmly to the back of the seats with both hands.

12. If you have a seat on the school bus, you should always remain seated until the bus comes to a full stop.

13. It is safe to put your books in the aisle of the school bus.

14. You can leave rakes and hoes on the ground if you remember to pick them up later.

15. You don't have to tell your parents where you are going if you will be back by a certain time.

16. When you must carry several packages, it is much better to make two trips.

17. Taking just a "little taste" of bleach or cleaners is safe because they are not poisonous.

18. It is all right for adults to use gasoline to start a fire when they are burning leaves.

19. If you are old enough, you can safely run up steps two at a time.

20. You should wear gloves when you pick up broken glass.

21. When using a knife, it is safe to cut toward your body.

22. You should take medicine only when your parents give it to you.

23. If you are standing in water or if your hands are wet, it is not safe to touch an electric applicance.

24. You can leave your toys on the stairs as long as you remember to remove them the next time you go up.

25. When you put a pot on the stove, you should place it so that the handle sticks out over the edge of the stove.

26. You should never use a power mower.

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27. To avoid getting a shock, you should jerk a plug out by pulling the cord.

28. If you spill something on the floor, you should wipe it up immediately.

29. If you don't know the phone number of the fire department, you can dial 0 and the operator will connect you with it.

30. Frayed cords on electric applicances are dangerous.

31. If you are watching your baby brother, you should give him a plastic bag to play with. It will keep him busy.

32. When taking care of a small child, you should never let him out of your sight.

33. A preschool child should not play with scissors that have sharp points.

34. It is safe to play with matches if there is water nearby in case you start a fire.

35. It is safe to play with wooden "safety" matches.

36. If you think there is a fire in your home, you should feel your bedroom door before opening it. If it is warm, you should escape another way.

37. In a fire, smoke, not flames, kills most people.

38. You should always sleep with your bedroom door closed in case there is a fire.

39. It is a good idea to pretend you are drowning and yell for help; this keeps the lifeguard in practice.

40. You should always swim where there is a lifeguard.

41. You can swim in unknown waters if someone is with you.

42. It is safe to swim alone if you are a good swimmer.

43. If your boat overturns, it is best to leave it and swim to shore.

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44. Don't go out in a boat unless there is a competent adult with you.

45. If one of your friends falls out of a rowboat, the best thing to do is to jump in and try to save him.

46. You need one life preserver for every two people aboard a boat.

47. If you change places in a boat, do it slowly and carefully, keeping your body low.

48. You can play baseball in the street if you have someone on the lookout for cars.

49. It is dangerous to use a baseball bat that has cracks in the wood.

50. After you have made a hit, you should fling the bat behind you and run.

51. Tripping a runner is okay if you are sure you can tag him out.

52. It is not safe to run in the gym while wearing leather shoes.

53. It is a good idea to keep on playing even though you are very tired. The exercise is good for you.

54. It is safe to go up the stairs with your roller skates on as long as you use the handrail.

55. When you are roller skating, you should not carry sharp or pointed objects.

56. Kites should not be flown near electric wires.

57. Beginners should ice skate in the same area as the advanced skaters, so that they will learn from them.

58. A "Danger--Thin Ice" sign means the ice is unsafe only for adults.

59. It is not safe to walk on the ground while wearing your ice skates.

60. Hitching a sled to a car is safe if you travel down a road with very little traffic.

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61. It is safe to put your head or arms out the window of a car when it is stopped at a traffic light.

62. If you are carrying an umbrella in the rain, carry it over your head, not in front of your face.

63. It is safe to stand up in the car as long as you hold on to something.

64. If you must walk along a highway, you should stay on the right-hand side of the road.

65. A traffic signal with a flashing red light means you should be ready to stop if cars are coming.

66. If possible, you should always cross a street in marked crosswalks or at intersections.

67. You don't have to fasten your seat belt if you are going for a short ride.

68. If you approach a corner and the traffic light is yellow, you should hurry up and get across the street.

69. It is safe to cross a street in the middle of the block if you look both ways.

70. It is safe to cross the street without looking when the traffic light is green.

71. The safest way to cross a street is to run.

72. You should always get out of a car on the side closest to the curb.

73. On dark days, you should wear something white or light in color, so you can be seen easily.

74. When it's raining, you should pull your hat down to cover your eyes.

75. A car is a safe place to be during a thunder and lightning storm.

76. Running and sliding on icy sidewalks is safe if you're careful not to bump into objects or other people.

GO ON TO NEXT PAGE--

77. You can throw snowballs at passing cars if you don't aim at the windshield.

78. A street near your house is very hilly and it is just perfect for sledding or coasting. Since there is little traffic on this street, it is perfectly safe to use it.

79. If someone falls through ice, you should jump in and try to rescue him.

80. During the winter when the streets and sidewalks are slippery, you should wear boots to help you keep from slipping.

81. Sneakers are the best kind of shoes to wear on a long hike because they are lightweight.

82. Even though wild animals seem friendly, you should leave them alone.

83. Jumping from high places is all right if you are wearing tennis shoes.

END OF QUIZ

# APPENDIX D

Pittsburgh
Public
Schools

# STUDENT ACCIDENT REPORT

(See Instructions on Other Side)

Form SS 53A
Revised 1967

(Check one)
☐ School Jurisdictional
☐ Non-School Jurisdictional

(Check One)
☐ Recordable
☐ Reportable only

1. Name .................................................. 2. Address ..................................................

3. School .................................................. 4. Sex M ☐ F ☐ 5. Age ............ 6. Grade/Sp. Prog. ............

7. Time of accident: Date .................................................. A. M. ............ P. M. Day of week ..........................

8. Accident Jurisdiction: (Check one) School Building ☐ School Grounds ☐ To and Fr. School ☐
School activity not on school property ☐ Home ☐ Other ☐

9. Is student enrolled in School Insurance Plan? Yes ☐ No ☐

10. Nature of injury
☐ Abrasion
☐ Bite
☐ Bruise
☐ Burn
☐ Concussion
☐ Cut
☐ Dislocation
☐ Electrical shock
☐ Foreign body
Other ..............................
☐ Fracture
☐ Internal injuries
☐ Laceration
☐ Multiple injuries
☐ Poisoning
☐ Puncture
☐ Sprain/Strain
☐ Scratches
☐ Teeth damaged
Other ..............................

11. Part of body injured
☐ Ankle
☐ Arm
☐ Back
☐ Elbow
☐ Eye
☐ Face
☐ Finger
☐ Foot
☐ Hand
☐ Head
☐ Knee
☐ Leg
☐ Nose
☐ Scalp
☐ Tooth
☐ Wrist
Other ..............................

12. Cause of injury
☐ Contact with caustic
☐ Electric current
☐ Extreme temp.
☐ Caught in/under/in between
☐ Fall from elevation
☐ Over exertion
☐ Struck against
☐ Struck by
☐ Toxic substance
Other ..............................

13. Location
☐ Classroom
☐ Corridor
☐ Gymnasium
☐ Home Economics
☐ Play field
☐ Pool
☐ School grounds
☐ .................. Shop
☐ Showers
☐ Stairs
☐ Toilet room
Other ..............................

14. Activity
☐ Basketball
☐ Baseball
☐ Football ..................
☐ Softball
☐ Free play
☐ Soccer
☐ Swimming
☐ Track/Field
☐ Volley ball
Other ..............................

15. Contributing factor
☐ Animal
☐ Apparatus
☐ Equipment
☐ Athletic
(Specify) ..............................
☐ Machinery
(Specify) ..............................
☐ Public Vehicle
☐ Private Vehicle
☐ Tool

16. Degree of injury (Check one) Death ☐ Permanent Disability ☐
Temporary Disability-lost time ☐ Non-Disabling-no lost time ☐

17. Total number days lost from school .................. Days lost from activities other than school time .................. Total time lost (School and Non-school) ..................

18. Supervision: (Name and Title) ..................................................

19. Immediate action taken: Nature of first aid and by whom given ..................................................
.................................................. Sent home ☐ hospital ☐ physician ☐ parent notified ☐

Name of physician (or hospital) ..................................................

Method of transportation ..................................................

20. Corrective action taken or recommended ..................................................
..................................................

21. Amount of property damage: School Property $ .................. Non-School Property $ ..................

22. Description: (Briefly give a word picture of the accident, explaining the who, what, where, when, and why of the accident. Do not repeat information already listed).
..................................................
..................................................

23. Report prepared by: (Signature and Title) 24. Principal's Signature 25. Date
.................................................. ..................

**Please read carefully** **INSTRUCTIONS** **Fill report in completely**

---

Promptly report all accidents. Make report in triplicate. Mail original and one copy to the Section on Safety Education, Administration Building. Retain one copy in your files to assist you in compiling the monthly summary (SS53M-SS53F). If the accident occurred at school or on school grounds, the instructor in charge must sign the report on the day of the accident. Unusually severe accidents occurring under school supervision should be reported immediately by telephone to the office of the Superintendent of Schools.

Use the form to report either school or non-school jurisdictional accidents as follows:
a. Any school jurisdictional accident which results in any injury to a pupil and/or property damage OR
b. Any non-school jurisdictional accident which results in an injury causing restriction of activity.
c. Put an "X" in the proper box at the upper left hand corner of the report.

If the injury does not cause lost time, place an "X" in the box marked "Reportable Only" in the upper right hand corner of the report.

Put an "X" in the box marked "Recordable" at the upper right hand corner if
a. Pupil injuries are severe enough to cause loss of one-half day or more of school time; or
b. Pupil injuries are severe enough to cause the loss of one-half day or more of pupil activity during non-school time; and/or
c. There is property damage as a result of a school jurisdictional accident.

Only those forms marked "X" in the "Recordable" box are to be reported on the School Summary Form (SS53M-SS53F), which are sent to the Section on Safety Education at the close of the month.

1, 2, 3, 4, 5, 6, 7, 8, 9—Self-Explanatory.

10. **Nature of injury.** Indicate what the injury was, such as burn, fracture, abrasion.

11. **Part of body injured.** Indicate part of body injured, such as lower arm, ankle, scalp.

12. **Cause of injury.** Identify the event which resulted in injury, such as fall from elevation, etc.

13. **Location.** Indicate exact location, such as second floor corridor near room 210, gym, etc.

14. **Activity of person.** Indicate what person was doing at time of accident.

15. **Contributing factor.** Indicate equipment or thing most closely related to the accident.

16. **Degree of injury.** Indicate death, if fatal. Permanent disability, if injury results in a complete loss of, or loss of use of, a body part, such as loss of an eye. Temporary disability, if injury does not cause permanent disability, but causes child to lose one-half day of school or more, or one-half day or more of normal activity if during a non-school period. If degree of injury is not immediately known, estimate, or use a follow-up system. Report should not be held up for lack of this information.

17. **Number of days lost.** Indicate from one-half or more, the number of days the student was absent from school; and/or the number of days from one-half day or more, the student was restricted from normal activities if during a non-school period.

18. **Supervision.** Indicate whether an adult was present at the scene of the accident; and if so, whether this adult was the teacher, another school employee, the parent, or another adult.

19. **Self-Explanatory.**

20. **Corrective action taken or recommended.** Indicate what action was taken locally and/or further action recommended, that is, action which may not be under the purview of local school personnel.

21. **Property damage.** Indicate in dollars the amount of damage to school property and/or other property as the result of the accident, if any.

22, 23, 24, 25—**Self-Explanatory.**

# 9. TELEVISION LINGUISTICS PROGRAM

# 9. TELEVISION LINGUISTICS PROGRAM

## Introduction

### History of the Program

During its first year of operation, the 1965-1966 school year, the Television Linguistics Program in structural grammar was offered to all regular ninth-grade English classes and all eighth-grade Scholars' English classes. Approximately 5,000 students participated. During the 1966-1967 school year, the same program was repeated for a similar population.

Each new concept in structural grammar was initially presented in a weekly 25-minute television lesson. This lesson was taught by an English teacher in the Pittsburgh Public Schools who was on leave from his regular assignment and was chosen for the television presentation because of his competence in the course content. The television lessons were taped and presented on a repeating schedule arranged to coincide with the beginning of every class period throughout the school day. Classroom teachers were furnished lesson plans in advance of the television presentation to guide them in their preparation and follow-up teaching activities.

In the 1966-1967 school year, a course in transformational grammar was added to the Television Linguistics Program and offered to all tenth-grade students in the Pittsburgh Public Schools. This course was taught by the same television teacher who had previously taught the ninth-grade course in structural grammar. The organization and procedures for presentation and follow-up were identical for both courses.

## Description of the Program

A definition meeting for the Television Linguistics Program was held at the Administration Building on March 28, 1967. Each of the two discussion groups was composed of 12 participants, seven of whom were classroom teachers, while the remaining five included a principal and supervisory-administrative personnel from the instructional and television education staffs. Each group had both experienced and beginning teachers representing ninth and tenth grades and Scholars' and regular classes. Trained discussion leaders from the Office of Research directed the participants' attention to a series of questions relating to various aspects of the program (see Appendix A for Group Interview Schedule). The information gained at this meeting was used by the program evaluator to compile the program definition which follows.

# Television Linguistics Program Definition

## GENERAL

I. Overall Statement of Objectives and Rationale for the Program

The purpose of the program is to present the concepts of contemporary grammar through the principles of linguistics science, stressing the patterning and structure of the English language rather than traditional Latin-oriented grammar.

II. Scope

A. Number of Pupils and Schools Involved

Approximately 12,000 students in all secondary schools and in eighth-grade Scholars' classes in secondary and elementary schools participate.

B. The Grades or Ages of Participants

1. Transformational grammar is presented to all tenth-grade students in the Pittsburgh Public Schools.

2. Structural grammar is presented to all ninth-grade students in the Pittsburgh Public Schools (except those in Scholars' classes) and to all eighth-grade students in the Scholars' Program.

C. General Description of Staff

1. Instructional staff

   a. Television teacher

   b. All teachers of tenth-grade English, all teachers of ninth-grade English (except teachers of Scholars' classes) and all teachers of eighth-grade Scholars' English classes

2. Supervisory staff

   a. Associate Director of Instruction for English

   b. Supervisor of English

   c. Television Education supervisors

## OUTCOMES

I. Major Objectives--changes that are expected to take place in program participants as a result of their experiences in the program. There are two types of major objectives.

  A. Terminal Objectives--behaviors that the pupil is expected to demonstrate at the end of the program to indicate successful completion of the program

    1. The ability to recognize the basic structure of the English language

    2. The ability to speak and write English with greater skill than has been achieved through the study of traditional grammar courses

    3. A heightened understanding of the importance of structure in framing sentences in speech and written compositions

    4. The ability to apply elementary scientific techniques to the study of grammar

    5. The ability to explain the functions of words in English sentences

    6. The ability to use versatile language in speech and writing

    7. Insight into and a feeling for good English

  B. Ultimate Objectives--behaviors that the student is expected to exhibit at the end of the program which will affect his general school performance and his life outside the school

    1. An elimination of language prejudices by an understanding of the appropriateness of different kinds of speech in different circumstances

    2. An interest in using effective English

    3. Alertness to the power of language as used in the mass media in today's world

4. Strengthened reading and listening skills

5. A developed skill in taking brief and comprehensive notes

6. A transfer of the enthusiasm and increased interest of slow learners, brought about by a better understanding of English grammar through linguistics, to other subjects in the curriculum

7. A broadening of experience, especially for children from deprived environments, through exposure to new techniques, concepts, and vocabularies presented in linguistics

8. An improvement in employment opportunities made possible by the ability to control standard English

II. Enabling Objectives--the skills and information the pupil must acquire during the program to make the attainment of the major objectives feasible

A. An understanding of the importance of the simple sentence and its use in constructing other kinds of sentences

B. The ability to analyze sentence parts and relationships

C. Knowledge of the principles of sentence construction and the ability to construct sentences

D. An enlarged vocabulary

E. Improved listening skills

F. The ability to do critical thinking

G. The ability to relate abstractions to specifics

III. Other Benefits--certain by-product benefits expected to accrue to parents, teachers, the school, and the community as a result of students' participation in the program

A. Parents' awareness of the school system's concern for finding better ways to teach children

B. An increase in teacher competency through a continuing in-service training program in linguistic principles and appropriate methods of presenting them in the classroom

C. An opportunity for adults to improve their knowledge of language through their informal participation in the Television Linguistics courses

D. A general community appreciation of the value of educational television

## ANTECEDENTS

### I. Students

A. Selection Criteria--the criteria that are used to determine who shall participate in the program

All students in ninth- and tenth-grade English classes, with the exception of ninth-grade students in the Scholars' Program, automatically participate in the Television Linguistics Program. In addition, the program is incorporated into the curriculum of the eighth-grade Scholars' students.

B. Entering Behaviors--characteristics of participants (other than selection criteria) which are related to performance in the program

Because the total city-wide enrollment in the program approximates 12,000 students, it is evident that no meaningful distinguishing group characteristics can be determined. There are, however, significant differences between the students in the Scholars' Program and those in regular classes in the ninth and tenth grades. Since Scholars and non-Scholars generally meet in separate classes, this distinction presents a valid basis for comparison.

1. Characteristics of Scholars' Program students in Television Linguistics classes

The typical student in the Scholars' Program is a rapid learner--alert, inquisitive, willing to work, wanting to learn, and able to accept a difficult assignment as a challenge rather than as an obstacle impossible to overcome. In addition, he is usually receptive to new ideas as evidenced by his readiness to experiment with new ways of doing things. This quality is a positive asset in the study of linguistics through the relatively new educational medium of television.

2. Characteristics of non-Scholars in Television Linguistics classes

   Many of these students exhibit the following characteristics that must be considered in planning program activities:

   a. They are often ill-prepared in language skills, having an inadequate understanding of traditional grammar, low reading and writing ability, and poor speech habits.

   b. They customarily lack skill in making generalizations and have little propensity for abstract reasoning.

   c. They have little motivation for learning academic subjects and little interest in exploring new fields or new ways of doing things. Specifically, they have some commitment to the concepts of traditional grammar, but they are generally not interested in gaining insight into new approaches to the subject.

   d. They speak better than they write.

3. There are also certain student characteristics which, when present, seem related to a successful performance in the Television Linguistics Program.

   a. Some knowledge of traditional grammar

   b. Skill in making generalizations

   c. The ability to read at grade level

   d. Some skill in dealing with abstractions

   e. The ability to take good notes

   f. The ability to outline

## II. Staff

Staff requirements reflect the dual nature of the Television Linguistics Program with respect to course content and medium of instruction. Staff qualifications with respect to specific positions are reported for both categories of personnel in the tables below.

School Staff

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Television Teacher | 1. Expert knowledge of subject<br>2. Certified teacher<br>3. Master teacher | 1. Pleasing TV personality<br>2. Good voice<br>3. Photogenic<br>4. Able to project to student audience<br>5. Creative<br>6. Adaptable |
| Classroom Teacher | 1. Degree in English<br>2. Knowledge of linguistics<br>3. Experience in teaching of subject desirable | 1. Positive, professional attitude<br>2. Willingness to share class time with TV teacher<br>3. Adaptable<br>4. Manifest interest in TV program<br>5. Ability to anticipate students' problems |
| Associate Director of Instruction for English | | 1. Personal interest in program<br>2. Ability to generate enthusiasm of staff |
| Planning Committee | 1. Master classroom teachers<br>2. Superior understanding of linguistics | |

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Associate Director, TV Education | Knowledge of TV and TV utilization | Some executive ability |
| Supervisor, TV Education | Knowledge of TV and TV utilization | Ability to give help without arousing antagonism |
| TV Repairman | Knowledge and experience in TV repair | Pleasing, unobtrusive manner |
| TV Repairman for non-Compensatory Schools (Contract Job) | Knowledge and experience in TV repair | Pleasing, unobtrusive manner |
| Secretary | Ability to do typing accurately | Ability to follow directions |

Television Station Staff

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Director, School Services | Knowledge of instructional TV | Executive ability |
| Assistant to Director of School Services | Knowledge of instructional TV | Executive ability |
| Producer-Director | Knowledge of instructional TV | Ability to handle crew, talent, and other elements efficiently |

III. Support

A. Administrative Support--support from administrative personnel who cooperate in carrying out the program

    1. Proper scheduling of Television Linguistics classes by the principal

    2. Adequate overall scheduling of the program

    3. Meaningful evaluation

    4. Facilitating the obtaining of supplies

B. Other Human Resources--auxiliary personnel whose cooperation is necessary for the smooth operation of the program

    1. Technical crew for producing TV programs

    2. Custodial services

    3. Cooperation of school personnel in keeping interruption of Television Linguistics classes to an absolute minimum

C. Media--necessary materials, equipment, and supplies

    1. Television equipment and related paraphernalia

        a. Television set in good working order, equipped for UHF

        b. Lock and key for television set

        c. Extension cords

    2. Other materials and equipment

        a. Sufficient and appropriate textbooks, especially for grade 10

        b. Lesson plans

        c. Blackboard

        d. Overhead projector and transparencies

        e. Tape recorder

        f. Supplementary reference materials

        g. Duplicating supplies

h. Pattern drills (used in two schools) to present standard structures

In regard to the purposes of these media, the lesson plans enable the teacher to prepare and motivate the students, and the textbooks make it possible to adapt the television lesson to the appropriate grade level. Purposes of the television set and related equipment are obvious.

D. Facilities

1. Classrooms in a good location

2. Proper lighting facilities

3. Convenient electrical outlets

PROCESS

I. Student Activities--the day-to-day program activities that lead ultimately to the achievement of objectives

A. Introductory activities conducted by the classroom teacher in preparation for the television lesson

B. Viewing the television lesson

C. Taking notes while the lesson is on the air

D. Participating in such follow-up and reinforcement activities as the following:

a. Reading related textbook material

b. Organizing, outlining, and reviewing information

c. Preparing and discussing homework assignments

d. Transferring skills and concepts of linguistics to related aspects of the English curriculum (spelling, composition, note taking, literature)

II. Staff Activities

A. Functions and Duties of Specific Staff Members

School Staff

| Staff Member | Functions | Duties |
|---|---|---|
| Television Teacher | Plans and presents each TV lesson | a. Prepares advance lesson plans for teachers<br>b. Interprets basic material<br>c. Observes classes<br>d. Arranges for program guests |
| Classroom Teacher | 1. Supports and reinforces television instruction<br>2. Provides feedback to TV teacher | a. Motivates and prepares students for TV lesson<br>b. Follows up TV lesson<br>c. Makes objective interpretation of TV lesson |
| Associate Director of Instruction for English | Has primary responsibility for all phases of the program except the technical aspects of TV production | a. Plans course content<br>b. Arranges for in-service training |
| Associate Director, TV Education | Has primary responsibility for coordination of instructional and television aspects of program | a. Supervises distribution of lesson plans<br>b. Provides budget for program |
| Supervisor, TV Education | Provides feedback to Associate Director, TV Education | a. Makes field observations<br>b. Makes suggestions about utilization |

| Staff Member | Functions | Duties |
|---|---|---|
| Planning Committee | General planning of units to be presented | a. Identifies major units for course<br>b. Provides general content for certain units |
| TV Repairman | Provides best reception possible | Repairs TV sets |
| TV Repairman for non-Compensatory Schools (Contract Job) | Provides best reception possible | Repairs TV sets |
| Secretary | Provides secretarial assistance | a. Types scripts<br>b. Types lesson plans<br>c. Mails lesson plans |

Television Station Staff

| Staff Member | Functions | Duties |
|---|---|---|
| Director, School Services | Responsible for coordination and production | Makes arrangements to insure the best production |
| Assistant to Director of School Services | Assists the Director in his responsibilities for coordination and production | Assists the Director in making arrangements to insure the best production |
| Producer-Director | Makes lesson the best possible from the point of view of TV production | a. Plans lesson with TV teacher<br>b. Produces and directs lesson |

B. Intra-Staff Communications and Coordination

1. Formal discussions about topics such as objectives, teaching techniques, problems, and needs--especially in the large schools
2. Informal communication among teachers to exchange ideas and suggestions about the program in its day-to-day operation
3. Visits to the classrooms by associate directors and supervisors
4. Written communications from the central office staff
5. Linguistics courses for teachers
6. Lesson plans distributed by the Associate Director, TV Education
7. Questionnaires
8. Meetings between the TV teacher and the television committee
9. Telephone contacts between teachers and the Associate Director, TV Education to discuss technical problems that arise

## Statement of the Problem

Believing that the effectiveness of an innovative instructional program such as Television Linguistics is to an important degree related to the attitude of its teachers, program and administrative staff requested that a survey of teacher opinion be made during the 1966-1967 school year. This request resulted in the gathering of data concerning teachers' attitudes toward many aspects of the program. It was also considered necessary to measure students' understanding of the content of the linguistics courses. The evaluation of the Television Linguistics Program in its second year of operation, therefore, had two major foci: (1) an appraisal of teachers' attitudes toward the courses and the television presentations, and (2) a determination of students' understanding of the concepts of structural or transformational grammar.

## Method

Teachers' attitudes toward various aspects of the program were surveyed through a three-part questionnaire (see Appendix B) designed by the evaluation staff of the Office of Research. This questionnaire requested data needed for evaluation, as well as additional information desired by program staff. It was mailed to all 150 teachers in the program in the spring of 1967. The return rate was 77 percent.

Part I of the questionnaire was concerned with mechanical and organizational aspects of the program. Part II contained 24 attitudinal items, all but one of which (item 16) had four response alternatives. (Item 16 asked teachers to evaluate their own competency to teach linguistics courses.) Part III consisted of eight open-end questions in which teachers were asked to express their opinions on a wide range of program variables. Evaluation of teacher attitude consisted of a descriptive analysis of the questionnaire.

Since the total population received the Television Linguistics Program and there were, therefore, no control groups available, a direct appraisal of student achievement was impracticable. As an alternative approach, student progress in linguistics courses was evaluated through a content analysis of the final examinations in structural and transformational grammar. These examinations (see Appendix C) were prepared by the television teacher under the guidance of the Office of Research. After the examinations were administered by classroom teachers, the answer sheets containing the raw scores were returned to the Office of Research for data processing and analysis. This analysis was based on 100 percent of the scores for Scholars' classes and a 50 percent random sample of the scores for regular classes and was obtained through the following procedures:

1. A frequency count of correct responses was obtained for each question. (The structural grammar examination had 80 items; the transformational grammar examination had 70 items.)

2. The percentage of correct responses was obtained for each question.
3. The mean percentage of correct responses for all questions and type of class was determined, as was the standard deviation for each distribution. This information is presented in Table 1.

TABLE 1

Mean Percentage and Standard Deviation by Type of Class

| Type of Class | Percentage | Standard Deviation |
|---|---|---|
| Structural Grammar | | |
| Regular classes | 63.2 | 15.6 |
| Scholars' classes | 82.1 | 13.9 |
| Transformational Grammar | | |
| Regular classes | 52.7 | 15.9 |
| Scholars' classes | 73.8 | 15.9 |

4. Those items with percentages of correct responses which were at least one standard deviation above and below the mean were selected for analysis.
5. The procedure discussed above yielded the number of items for analysis for each distribution shown in Table 2:

TABLE 2

Number of Items Selected for Analysis for Each Distribution

| Distribution | No. Items Upper End | No. Items Lower End |
|---|---|---|
| Structural Grammar | | |
| Regular classes | 14 | 12 |
| Scholars' classes | 8 | 12 |
| Transformational Grammar | | |
| Regular classes | 12 | 10 |
| Scholars' classes | 14 | 9 |

For a complete record of percentages of correct responses and deviations from the mean for each of the four distributions, refer to Appendix D.

Results: Questionnaire for Television Linguistics Teachers

There are three possible assignments which linguistics teachers might have had--teaching only structural grammar, teaching only transformational grammar, or teaching both structural and transformational grammar. Of the teachers who returned the questionnaire, 53 taught only structural grammar, 44 taught only transformational grammar, and 18 taught both. Their responses can be interpreted as being more positive than negative concerning all aspects of the linguistics program.

In response to the 18 questions which all the teachers were asked to answer, the three teacher assignment groups were very similar in their answers. The largest number of responses generally were the same for all three groups. Only on questions 5, 6, 10, 13, 14, 15, 22 and 24 did one of the three groups differ in their choice of the most frequent response.

Following is a list of the topics covered in the 18 questions and the response(s) chosen by the largest number of teachers:

| Item | Topic | Most Often Chosen Response(s) |
|---|---|---|
| 1. | Value of the provided lesson plans | Quite valuable |
| 2. | Quality of television reception | Average |
| 3. | How well the teachers feel they could teach linguistics without the use of the television program | Reasonably well |
| 4. | Number of television lessons needed each month | Four |
| 5. | Enjoyment of teaching linguistics | Very much--structural grammar teachers<br>Moderately--other teachers |

| Item | Topic | Most Often Chosen Response(s) |
|---|---|---|
| 6. | Type of student who benefits most from linguistics as now presented | The average student--structural grammar teachers<br>The above-average student--transformational grammar teachers<br>The average student and the above-average student equally--those who teach both types of grammar |
| 7. | Value of in-service activities | Average |
| 8. | Amount of additional preparation needed to teach linguistics | Little additional preparation |
| 9. | Frequency of material preparation for classes | Less than once a week |
| 10. | Importance of student notebooks in linguistics | Average importance--those who teach both types of grammar<br>Great importance--all other teachers |
| 11. | Frequency of use of linguistics textbooks | Once weekly |
| 12. | Time necessary for student motivation before television lessons | Less than half a period |
| 13. | Time needed for follow-up of television lessons | Less than half a period--those who teach both types of grammar<br>At least half a period--all other teachers |
| 14. | Amount of formal training the teachers have had in linguistics | Answers divided equally between no formal training and linguistics workshop--structural grammar teachers<br>Answers divided equally between no formal training, one course, two or more courses, and linguistics workshops--transformational grammar |

| Item | Topic | Most Often Chosen Response(s) |
|---|---|---|
| | | teachers<br>No formal training--those who teach both types of grammar |
| 15. | Feelings about time required for linguistics in total English program | Reasonable amount of time required --structural and transformational grammar teachers<br>Too much time required--those who teach both types of grammar |
| 16. | Evaluation of self-competence | "80" on a scale of 0-100 with 0 meaning no competence and 100 meaning complete competence |
| 22. | Attitude of non-Scholars' classes toward television program | Favorable--structural grammar teachers<br>Unfavorable--all other teachers |
| 24. | Attitude of non-Scholars toward course content | Favorable--structural grammar teachers<br>Unfavorable--all other teachers |

Questions 17, 18, 21, and 23 were applicable for those teachers who taught structural grammar only and possibly for those who taught both structural and transformational grammar. Their responses to these questions were as follows:

| | | |
|---|---|---|
| 17. | How teachers rate textbook | Adequate |
| 18. | How students react to textbook | Favorably |
| 21. | Attitude of Scholars' classes toward the television program | Favorable--those who teach only structural grammar<br>Equally divided between favorable and unfavorable--those who teach both structural and transformational grammar |

| Item | Topic | Most Often Chosen Response(s) |
|---|---|---|
| 23. | Attitude of Scholars' classes toward the course content | Favorable--those who teach only structural grammar<br>Equally divided between favorable and very unfavorable--those who teach both structural and transformational grammar |

Questions 19 and 20 were applicable for those who taught transformational grammar only and possibly for those who taught both types of grammar. Their responses to these two questions were as follows:

| | | |
|---|---|---|
| 19. | How teachers rate textbook | Adequate |
| 20. | How students react to textbook | Unfavorably |

The teachers were also asked to answer eight open-end questions. The eight questions with the responses the teachers made to them are listed below.

### Question 1: What major problems are you now facing in the teaching of linguistics?

The two major problem areas were the content of the course and the motivation of students. Examples of problems concerned with course content were: (1) lack of continuity in lessons, (2) abstract thinking and inductive reasoning too difficult for students, (3) lack of continuity between structural grammar and transformational grammar, (4) too many exceptions to the rules, and (5) difficulty of transferring linguistics concepts to learning in other classes. Some of the problems of motivation were: (1) students' need for more immediate reward, (2) justifying the

Television Linguistics Program to the students, (3) eliminating the drag caused by the dullness of the television program, and (4) the non-receptive attitude of students toward linguistics as a replacement of traditional grammar.

The next most serious problem mentioned was the presentation of the television program itself. Some of the specific items mentioned were: (1) television lessons not correlated with the textbook, (2) illustrations which talked down to students, (3) television programs which moved too slowly, and (4) information given on television which was not sufficiently clear.

Some of the teachers indicated that they had a hard time finding enough time to devote to linguistics each week. They also said that requiring a theme per week of the students demands too much teacher time.

Another problem dealt with the materials. Lesson plans were delivered late, there was a need for more books, and textbook illustrations were not suited to the type of student using them.

Some teachers expressed the feeling that they lacked enough personal knowledge of linguistics to do an adequate job of teaching and said there was a need for in-service or summer training courses.

Question 2: What benefits do you feel your students are gaining from the study of linguistics?

The teachers indicated that the greatest benefit was a better understanding of the structure of English, including the similarities among words, basic grammar, and sentence construction and parts of speech.

Another benefit mentioned was an awareness of different approaches to the study of grammar. In this connection, teachers cited specific benefits such as making comparisons with traditional grammar, a fresh concept of grammar and new concepts of language study.

Increased interest in language, intellectual growth, practice in use of language, and strengthening of study skills were also mentioned by some of the teachers as benefits to the students.

Question 3: What are the disadvantages in the study of linguistics for your students?

The largest number of teachers felt that the linguistics course was generally a poor use of the students' time for the following reasons: (1) the time could be spent better in something else, (2) the students have to watch the television program too much, (3) there is too much theory, (4) the students can see no relationship between linguistics and their lives, and (5) language patterns cannot be changed in this way.

Some of the teachers felt that linguistics caused too much confusion for the students, with its new terminology and new divisions of words. Some also said that no one seemed to know where the lessons were going.

A few of the teachers said they did not think the students were prepared well enough in traditional grammar. Others said linguistics instruction should have started in earlier grades.

Other disadvantages for the students mentioned were the following: (1) not enough time for proper coverage of the material, (2) the difficulty of relating linguistics to the other parts of the English program, (3) the lack of materials for proper preparation and follow-up, (4) material that is too difficult, and (5) having to take notes.

Question 4: What disadvantages do you see in using television as a medium of instruction in linguistics courses for your students?

The most often mentioned disadvantage of using television was its inflexibility. This includes such things as not being able to interrupt the program to ask questions, to explain confusing points, or to discuss points of interest.

The second greatest disadvantage mentioned was the difficulty of meeting the varying needs of individual students with only one program presented on one level.

Poor reception in some schools hampered understanding and proved to be a disadvantage.

Other disadvantages mentioned were the following: (1) poor pacing of the program (sometimes too fast, sometimes too slow), (2) the fact that students think of television as entertainment and not as education, (3) lack of personal contact, (4) the television set not always being available, (5) the amateur quality of the program, (6) the minimization of the role of the classroom teacher, and (7) the fact that too much follow-up is necessary.

Question 5: What are the advantages of using television in linguistics courses for your students?

Most of the teachers who answered this question felt that the greatest advantage of using television was that the students associated it with pleasure and it, therefore, served as good motivation.

The next greatest advantage of television was felt to be that it gave all students a chance to learn linguistics from a master teacher. Some of the teachers felt that the television teacher was a better teacher than they were. Others commented upon the fact that the television program gave the students information upon which the classroom teachers could build.

Some teachers felt that television provided a systematic organization of content. Their comments were: (1) it keeps all classes together, (2) there is some basis of objectivity, (3) television lessons are usually well organized, and (4) there is uniformity of coverage of the content.

Another advantage mentioned by the teachers was that television was a good medium for teaching--more specifically that it aided student comprehension, it required the students to pay attention, and there was use of visual example.

Question 6: What linguistics concepts have been best presented in the course to date?

In descending order of frequency of mention the concepts were the following: (1) form classes, (2) kernal sentences, (3) function words, (4) sentence tree, (5) scientific approach, the phonological concepts, and concepts of lexical and structural meaning, (6) concept of morphology, (7) basic pattern sentences and history of language, (8) classification of words, (9) studies of sound, (10) elements of language, phrase-structure rules, and changing language, and (11) different levels and uses of language and basic sentence structure.

Question 7: What concepts do you think need to be re-presented or re-taught?

The most frequent response was "none." The responses after that in descending order of frequency were the following: (1) phonemes and morphemes, (2) overlapping functions of words, (3) how to find intensifiers, (4) derivation and purpose of studying linguistics, (5) phrase-structure rules, (6) subordination and auxiliaries, and (7) modification, expansion, formal versus structural signals, non-kernal sentences, difference between structural and lexical meaning, kernal sentences and sound and meaning.

Question 8: List below any specific suggestions you have for improving the television linguistics program.

Those suggestions made by eight to 10 teachers were: (1) hire someone more qualified than present television teacher (linguistically speaking and as a performer), (2) speed up various areas of the program (have less repeating), (3) make lesson plans and long-range plans and objectives available to classroom teachers ahead of time, and (4) extend structural linguistics through tenth grade.

The suggestions made by four to six teachers were: (1) the humor should be improved (the irrelevant needs to be cut out and the sophisticated, the current, and the more mature stressed), (2) a short review should precede each lesson, (3) more student exercises should be provided during lessons, (4) the program should be begun on a lower level, (5) more examples should be provided, (6) the program should be aimed at only one level of students, and (7) tests should be provided which correlate more closely with what is going on in classes.

Suggestions which three or fewer teachers mentioned were: (1) use more challenging questions, (2) clarify scientists' methods, (3) give students time to digest rules before giving the exceptions, (4) improve the quality of the television reception, (5) provide centrally prepared drill sheets, (6) bring in nationally known experts to present information not otherwise available to classroom teachers, (7) teach program as one unit of study over a two- or three-week period, (8) provide more books, (9) allow more time for students to copy material, (10) maintain a consistency of oral terminology and written symbols, (11) have the television instructor visit the classrooms, (12) provide a live audience for the television instructor, (13) give more attention to advanced composition, (14) change the theme song for the tenth-grade program, (15) use completely objective tests, and (16) have a more advanced program for the Scholars.

## Results: Structural Grammar Examination

### Part I--Recognition

Form Classes. Students in Scholars' classes and those in regular ninth-grade English classes had little difficulty in classifying words as to their form class. Of 15 items relating to this concept, only question 14 appeared at the lower end of both distributions. In responding to this question a majority of both groups of students incorrectly identified lot in the clause "...he had done a lot of night swimming...." as an adjective instead of as a noun. This proved to be the most difficult question on the test for all students. Scholars' students had relative difficulty recognizing dark in the clause "...he would go for a swim after dark...." as a noun, with 38 percent classifying the word in some other form class. Each group placed three items in this section of the examination in the upper end of its distribution, suggesting that the concept of form classes was generally well understood by the total population.

Basic Sentence Patterns. Of the five questions which measured understanding of basic sentence patterns, two (questions 16 and 19) appeared in the lower end of the distributions for Scholars' and regular classes alike, while no question in this section found its way into the upper end of the distributions. In question 16, 39 percent of the Scholars and 63 percent of the students in regular classes failed to record the correct response. Similarly, in responding to question 19, 32 percent of the Scholars and 55 percent of students in regular classes were incorrect. Despite the appearance of two questions in this five-item section in the low end of the distributions, a majority of Scholars chose the correct responses for all questions and a majority of students in other classes chose the correct response for three of the five. Nevertheless, the mean percentages of correct responses in this section of the test was relatively low for both groups compared to the mean percentages for all items (48 percent versus 63 percent for regular classes and 73 percent versus 82 percent for Scholars' classes).

Complete Formulas. This section (questions 21 through 25) was based on the same sentences as the preceding one. Students in both groups, however, had a higher degree of comprehension of complete formulas than they had of basic sentence patterns. This is reflected by the fact that no question in this section appeared in the lower end of the Scholars' distribution and only one (question 24) appeared in the lower end of the distribution for regular classes.

Sentences from Formulas. Both groups of students proved able to match sentence formulas with sample sentences in their responses to questions 26 through 30. With one exception (regular classes' responses to question 26), the majority of students answered all questions in this section correctly. Moreover, responses to most questions registered percentages considerably above the mean for the entire test.

Function Words. No serious difficulty was experienced with any question that measured understanding of function words, with the single exception of the responses of regular students to question 35. In this case only 44 percent of the students properly identified the underlined words in the sentence "Before you came and while he was talking, Mary circulated among her friends and neighbors." as coordinators and subordinators.

Kinds of Sentences. Judging from responses to test items, most students demonstrated a clear understanding of sentence type. Scholars' students placed two of the five questions in this section at the upper end of their distribution, and those in regular classes placed four of the five in the upper end of their distribution. Furthermore, the mean percentages of correct responses were 8.4 and 13.9 higher than the mean percentages for the entire test for Scholars' and regular classes respectively. Question 41, which dealt with recognition of sentence type through intonation, was relatively difficult, however, for both groups. For regular students this question fell in the lower end of the distribution, and for Scholars' students its percentage of correct responses was 11 percent below the mean.

Expansions. Four items dealing with expansion of a basic pattern comprised the final section of Part I of the examination. This area of the course was well assimilated by both groups of students, with regular students according it the highest upward deviation from the total mean of any section of the test. Both groups placed two of the four items in the upper end of their distribution.

## Part II--Judgment

Part II of the examination attempted to measure students' attitudes toward linguistics principles. In responding to question 46, Scholars' and regular students alike overwhelmingly rejected the idea that the use of nonstandard English brands a speaker as stupid. About half the students in both kinds of classes failed to accept the statement that nonstandard English is probably a sign of an uneducated speaker and thus answered the question incorrectly. A third of the regular students incorrectly assessed the recognition of form classes as the most desirable result of a study of grammar (question 48). Although they correctly associated the scientific nature of linguistics with observation of language behavior (question 52), many regular students joined Scholars' students in failing to realize that linguistics qualifies as a science because it is descriptive rather than prescriptive (question 53).

## Part III--Completion

Each of the 10 items in Part III of the examination required students to choose one of four responses in order to complete a statement correctly. The statements related mainly to the technical lexicon of structural grammar. The mean percentages for this section were slightly below those obtained for the entire test for both groups of students, with two questions falling into the lower end of each distribution and no question appearing in the upper end for either group. Although a majority of students in responding to question 56 understood the linguistics principle that sentences are most accurately considered structures which do not need to be part of a larger structure, sufficient numbers in both groups had difficulty with the item to place it in the lower end of their distribution. Most Scholars who answered the question incorrectly reflected a common misapprehension by limiting their definition of a sentence to "a structure that contains a subject and a predicate." They were joined in this answer by over half of the regular students. The latter also had considerable difficulty identifying the role of responses in linguistics.

### Part IV--Recall

Two of the four matching questions in Part IV concerned the history of English, and two concerned the structure of the language. Some confusion regarding the role of Chaucer in standardizing Middle English was apparent in both groups, while a relatively high proportion of the Scholars (38 percent) failed to associate William the Conqueror with the Norman Conquest. Similar proportions did not recognize Old English as being of Anglo-Saxon origin and were unable to identify close down as a separable verb. The highest percentage of correct responses in this section of the test was registered by both groups in identifying the expression "You all" as an example of American Southern dialect.

## Results: Transformational Grammar Examination

### Part I--Sentence Trees

The five items on sentence trees (equivalent to diagramming in traditional grammar) proved relatively difficult both for students in the Scholars Program and for those in regular classes. For the latter group the mean percentage of correct responses for these five items was 12 points below the mean percentage for the entire test, and for Scholars' classes it was 7.4 points below the total mean. Each group had sufficient difficulty with one of the trees (item 3 for Scholars'classes and item 4 for regular classes) to place the item in the lower end of its distribution. Item 3 was a simple sentence having a verb in the present tense followed by a direct object, while item 4 was a sentence containing a predicate adjective. Of the five items in this section, item 2, a simple sentence in the present tense, was best understood by both groups of students.

### Part II--Judgment

Questions 6 through 15 were true-false items largely concerned with definitions of general terms and principles of transformational grammar. Both groups of students found this section relatively easy, with each group placing one of the questions in the high end of its distribution.

## Part III--Kernels

Using the final examination as a criterion for measuring comprehension, it is clear that students in both types of classes absorbed the concept of kernel sentences better than any other on which they were tested. This is evident in a mean percentage of correct responses in both groups higher than for any section (+6.1 for regular classes and +7.5 for Scholars) and is further borne out by the fact that Scholars placed three of the questions in the high end of their distribution while regular students placed two in the high end of theirs. The single stumbling block in this section was question 24, in which slightly more than one third of the students in regular classes failed to associate "He became lazy." with the appropriate kernel sentence.

## Part IV--Transformations

Responses to the questions devoted to transformations were parallel for both groups of students in several respects. First, the mean percentage of correct responses was the second highest of all sections of the test for each group. Second, the mean percentage for this section exceeded the mean percentage for the entire test by 5.8 points in both groups. Third, each group placed the same four questions (26, 28, 29, and 30) in the upper end of its distribution. Finally, both Scholars'and regular classes had sufficient difficulty with question 31 to place it in the low end of their respective distributions. Most students who answered this question incorrectly selected the sentence with the present perfect tense rather than the one with the simple present tense to match the formula Af + v → v + Af.

## Part V--Phonology and Morphology

Part V of the examination sought to measure students' understanding of the sound and structure of English words. The mean percentage of correct responses for this section was virtually the same as the mean for the entire test for both populations. Students in both groups were most successful in identifying "saw," believed," and "grew" as past morphemes in question 42, which became the only question in this section to rank in the high end of the distributions. On the other hand, Scholars had most difficulty with question 36, with approximately 40 percent unable to define a phoneme as "a family of related units of sound," equating it instead with "a unit of sound." Regular classes were most confused by question 41, with 63 percent incapable of distinguishing among allomorphs, allophones, allophonemes, and allomorphemes.

## Part VI--Syntax

Scholars' Programstudents and those in regular classes placed four common items dealing with syntax (49, 50, 51, 55) at the high end of their distributions, with Scholars adding question 54 to this list. Three of these questions (49, 50, and 51) concerned formulas for sentence parts, and the fourth (question 55) measured whether students could associate the symbol NP (for noun phrase) with "Det(determiner) + N(noun)." More than nine out of 10 Scholars were also able in responding to question 54 to match the symbol with an optional construction. Although both categories of students had significant difficulty with question 48 (recognizing S as the symbol for recursiveness), achievement on the items in this section averaged approximately 5 percent higher than the test as a whole.

## Part VII--Deep and Surface Structure

Without question, the final section of the examination, which dealt with the linguistic concept of deep and surface structure, proved most difficult for Scholars'and regular students alike. Students in regular classes recorded a mean percentage of correct responses 13 points below that obtained for the entire test; the corresponding figure for Scholars'classes was 19 points.

Each of the 10 questions in this section of the test contained three response alternatives, one of which did not belong with the other two. Students were asked to choose the response that was out of place. Approximately three quarters of the students in regular classes failed to eliminate the inappropriate item in four of the 10 questions, and over half of the Scholars had difficulty with five of the 10. The most difficult question on the entire test for Scholars proved to be question 63, with only 28 percent of these students responding correctly; question 66 had the lowest recorded percentage (22 percent) of correct responses for students in regular classes. Each distribution contained two items in this section of the test that were answered correctly with a greater frequency than the questions of average difficulty.

## Discussion and Conclusions

The generally positive response of teachers to the attitude questionnaire indicates faculty support for the program. Teachers were in basic agreement about the value of such overall aspects of the program as the issuing of lesson plans and the weekly presentation of the television lesson, while they questioned the efficacy of some in-service activities and identified such mechanical problems as inadequate television reception and the occasional late delivery of lesson plans. Teachers of structural grammar agreed with teachers of transformational grammar on the majority of items on which they were polled. Principal differences between the two groups were registered with respect to the value of student notebooks, students' attitudes toward the course content and the television lessons, time required for classroom follow-up of the television lesson, and the need for teacher preparation.

Most of the concepts measured by both the final examinations were understood by a majority of both groups of students (Scholars'and regular students). As might be expected, Scholars' Program students outperformed those in regular classes by a wide margin. Although the absence of control groups makes it impossible to evaluate the opinion of teachers that the average student derives the most benefit from the program, the high degree of achievement of the Scholars implies that they derived considerable benefit from the course in terms of understanding its principal concepts.

There is general agreement between teachers' opinions about the concepts best presented on the television program and student achievement on the final examination in the areas of form classes, function words, kernel sentences, phonology, and morphology. The data do not support those teachers who listed the concepts of phonemes and morphemes, phrase-structure rules, and sentence expansion as those most in need of re-teaching. Students taking both courses have a positive attitude toward those linguistics concepts measured by the final examinations.

# APPENDICES

## Appendix A

# GROUP INTERVIEW SCHEDULE
# TELEVISION LINGUISTICS PROGRAM

## OBJECTIVES

1. What objectives does the Television Linguistics Program seek to accomplish for the students in your school? (What should students be able to do as a result of participation in the program?)

2. Are there any objectives, not directly related to students' accomplishment in the classroom, which might be realized through Television Linguistics and which will help bring about the major objectives of the program?

3. Do you see any by-product benefits to parents, teachers, the community, or the school that may result from the Television Linguistics Program, even though they may not specifically help bring about the major objectives?

## STUDENTS

1. What are the principal characteristics and attitudes of Scholars' students participating in the program?

2. What are the principal characteristics and attitudes of student participants who are in regular classes?

3. What are the activities which students typically take part in and which help them to realize the major objectives of the program?

4. Are there any skills or knowledges which are, or should be, prerequisite for success in the Television Linguistics Program?

5. Are there any special skills or knowledge which students may be expected to acquire as they participate in the program and which will help them to realize its objectives?

## STAFF

1. What instructional personnel are necessary in order to meet the objectives of the Television Linguistics Program?

2. What noninstructional personnel (e. g. television staff) are necessary in order to meet the objectives?

3. What is the role of each staff member mentioned above in meeting the program's objectives?

4. In fulfilling their roles, what specific duties are required or expected of the various staff members in the program?

5. What legal, professional, or other nonpersonal qualifications are specified or recommended for each group of the staff?

6. What personal characteristics are necessary for the various staff members if they are to carry out their assignments with the program's objectives in mind?

## MEDIA

1. What are the five most valuable materials, equipment, and supplies (other than television materials and equipment) required to carry out the program?

2. What specific television materials, equipment, and supplies are required? How will these materials, equipment, and supplies contribute to realizing the program's objectives?

## COMMUNICATION

1. How do members of the Television Linguistics staff communicate with one another concerning the operation and development of the program within the school?

2. How are staff members in the school kept informed of developments concerning the city-wide Television Linguistics Program? How do they communicate their needs to those responsible for the program on the central office staff?

## SUPPORT

1. What support is necessary to operate the Television Linguistics Program within a school?
2. What support do you feel is required from the Central Office staff to meet the program's objectives?
3. What steps are, or should be taken to assure this support?

# APPENDIX B

46-47

Office of Research
January 1967

# QUESTIONNAIRE
# TELEVISION LINGUISTICS TEACHERS

Name of school ________________________________________

Check the grades in which you teach television linguistics:

Grade 8 ________ Grade 9 ________ Grade 10 ________

Check your years of teaching experience, counting the current school year as one full year:

1 year ______ 2 to 5 years ________ 5 to 10 years _____ more than 10 years ____

Indicate the number of years, counting 1966-1967 as a full year, that you have been teaching linguistics: ________ years

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## PART I

By filling in the spaces in the chart below, you will provide valuable data about the physical organizational aspects of the Television Linguistics Program in your school. COMPLETE ONE COLUMN FOR EACH LINGUISTICS CLASS THAT YOU TEACH.

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Grade | | | | | | |
| Number of students | | | | | | |
| Write "S" if Scholars' class | | | | | | |
| Write "N" if non-Scholars' class | | | | | | |
| Indicate whether linguistics textbook is available by writing "Yes" or "No" | | | | | | |
| Does this class regularly view the television lesson? ("Yes" or "No") | | | | | | |
| Is a television set permanently assigned to your classroom? | | | | | | |
| Do any other classes view the lesson at the same time in the same room? | | | | | | |
| If answer to above question is "Yes," indicate number of additional classes. | | | | | | |
| If your class does not view the lesson in your classroom, indicate location.* | | | | | | |
| How much time in minutes do you have for follow-up the same day the lesson is taught? | | | | | | |

* For example: auditorium, gym, audio-visual room, library, cafeteria, another classroom

## PART II

The questions below concern teachers' opinions about television linguistics. By checking one of the four choices provided with each question, you can register your evaluation of an important aspect of the course. THERE ARE NO RIGHT OR WRONG ANSWERS. All replies will be kept confidential.

1. How valuable do you find the lesson plans provided for these courses?

☐ Of very little value ☐ Quite valuable
☐ Of average value ☐ Of very great value

2. How would you characterize the quality of television reception in the room where your students view the program?

☐ Excellent ☐ Below average
☐ Average ☐ Poor

3. How well do you feel you could teach the linguistics course without the use of the television program?

☐ Not well at all ☐ With little difficulty
☐ Reasonably well ☐ Extremely well

4. How many television lessons do you feel should be presented monthly?

☐ One ☐ Three
☐ Two ☐ Four

5. To what extent do you enjoy teaching your linguistics courses?

☐ Very much ☐ Only slightly
☐ Moderately ☐ Not at all

6. In your opinion, what type of student benefits most from the study of linguistics courses as they are now presented?

☐ The slow learner ☐ The above-average student
☐ The average student ☐ The superior student

7. How valuable have you found the in-service activities conducted for teachers of television linguistics?

( ) Not valuable at all
( ) Of slight value
( ) Of average value
( ) Very valuable

8. How much additional preparation do you find necessary in order to teach your linguistics classes?

( ) No additional preparation
( ) Little additional preparation
( ) Considerable additional preparation
( ) Excessive additional preparation

9. How often do you prepare worksheets or other duplicated materials for your linguistics classes?

( ) More than once a week
( ) About once a week
( ) Less than once a week
( ) Not at all

10. What importance do you attach to student notebooks in connection with the linguistics courses?

( ) No importance
( ) Little importance
( ) Average importance
( ) Great importance

11. How often do you use the linguistics textbook?

( ) Daily
( ) Several times weekly
( ) Once weekly
( ) Very seldom

12. How much time do you find necessary for proper motivation before students view the television lesson?

( ) A full period or more
( ) At least half a period
( ) Less than half a period
( ) None

13. How much time do you need to follow up each television lesson?

( ) None
( ) Less than half a period
( ) At least half a period
( ) A full period or more

14. How much formal training have you had in the field of linguistics?

( ) No formal training
( ) One course
( ) Two or more courses
( ) Linguistics workshops
(Indicate number___)

15. In relation to the total English program, how do you feel about the time required for the linguistics lessons?

( ) Far too much time required
( ) Too much time required
( ) Reasonable amount of time required
( ) Too little time given to linguistics

16. On the scale below indicate by encircling the appropriate number where you perceive yourself to be in terms of your competence to teach the concepts of linguistics to classes. ("0" represents no competence; "100" represents complete competence.)

0 10 20 30 40 50 60 70 80 90 100

Please respond to those items below which apply to your own teaching assignment. Check "Not applicable" for items which do not apply.

17. How do you rate the linguistics textbook for grade 9 (and grade 8 Scholars)?

( ) Superior
( ) Adequate
( ) Below average
( ) Unsuitable
( ) Not applicable

18. How do your students react to this textbook?

( ) Very favorably
( ) Favorably
( ) Unfavorably
( ) Very unfavorably
( ) Not applicable

19. How do you rate the linguistics textbook for grade 10?

( ) Superior
( ) Adequate
( ) Below average
( ) Unsuitable
( ) Not applicable

20. How do your students react to this textbook?

( ) Very favorably
( ) Favorably
( ) Unfavorably
( ) Very unfavorably
( ) Not applicable

21. In general, how would you describe the attitude toward the television program of students in your Scholars' classes?

( ) Very favorable
( ) Favorable
( ) Unfavorable
( ) Very unfavorable
( ) Not applicable

22. In general, how would you describe the attitude toward the television program of students in your regular classes?

( ) Very favorable
( ) Favorable
( ) Unfavorable
( ) Very unfavorable
( ) Not applicable

23. How would you describe the attitude of Scholars' Program students toward the course content?

( ) Very favorable
( ) Favorable
( ) Unfavorable
( ) Very unfavorable
( ) Not applicable

24. How would you describe the attitude of regular students toward the course content?

( ) Very favorable
( ) Favorable
( ) Unfavorable
( ) Very unfavorable
( ) Not applicable

## PART III

Please answer the following questions as briefly and succinctly as possible. Use other side if necessary.

1. What major problems are you now facing in the teaching of linguistics

2. What benefits do you feel your students are gaining from the study of linguistics?

3. What are the disadvantages in the study of linguistics for your students?

4. What disadvantages do you see in using television as a medium of instruction in linguistics courses for your students?

5. What are the advantages of using television in linguistics courses for your students?

6. What linguistics concepts have been best presented in the course to date?

7. What concepts do you think need to be re-presented or re-taught?

8. List below any specific suggestions you have for improving the Television Linguistics Program.

# APPENDIX C

# GRADE 9

# FINAL EXAMINATION

# LANGUAGE SENSE AND STRUCTURE

## FINAL EXAMINATION - LANGUAGE SENSE AND STRUCTURE (B) Grade 9

There are eighty points in this examination. Each part has been assigned a point value.

### PART I - RECOGNITION (45 points)

### FORM CLASSES

In this part of the examination you are to indicate the form class of each numbered, underscored word in the paragraph below. Darken the blocks on your answer sheet by this code: 1=noun; 2=verb; 3=adjective; 4=adverb. For example, if you think an underscored word is an adjective, darken the block with the number 3 in it.

(1) (2) (3) (4) (5)
He thought suddenly of the lake and decided that he would go for a swim
(6) (7) (8)
after dark. He would feel the cool water against his hot body and plunge his
(9) (10) (11) (12)
face into the mysterious depths holding the stars. That was practically the
(13) (14) (15)
only good thing about this summer: he had done a lot of night swimming and

learned to love it.

### BASIC PATTERNS

In this part of the examination you are asked to find the basic sentence pattern in the expanded structures below. Example: The basic pattern in He carelessly threw the ball down the street. is 121. Your answer will be one of the four patterns below:

(1) 1 2 (4)
(2) 1 2 1
(3) 1 2L 3
(4) 1 2L 1.

On your answer sheet darken the number of the basic pattern contained in each of the sentences.

16. Furniture for classrooms is always a big problem for school designers.
17. Students are either too big or too small.
18. Furniture must function differently in different classes.
19. In some classes tables must serve several purposes for instruction in the subject.
20. A new adjustable chair fits the shorter students and the taller ones in a class.

### COMPLETE FORMULAS

In this part you will need to recognize the complete formulas for the same sentences. On your answer sheet darken the block which has the number to match the number of the best formula for each sentence.

21. Furniture for classrooms is always a big problem for school designers.
(1) 1 p 1 2 4 d 3 1 p 3 1. (2) 1 p 1 2L 4 d 3 1 p 3 1.
(3) 1 p 1 2 4 d 3 1 p 1. (4) 1 p c p 2L 4 d 3 1 p 3 1.
22. Students are either too big or too small.
(1) 1 2 c v 3 c v 3. (2) 1 2 c v 4 c v 4.
(3) 1 2L c v 3 c v 3. (4) 1 2L c v 3 c v 4.
23. Furniture must function differently in different classes.
(1) 1 a 2 4 p 3 1. (2) 1 a 2 4 p 4 1.
(3) 1 a 2L 4 p 3 1. (4) 1 a 2L 4 p 4 1.

## FINAL EXAMINATION - LANGUAGE SENSE AND STRUCTURE (B)

24. In some classes tables must serve several purposes for instruction in the subject.
    (1) p d 1 1 a 2 d 1 p 1 p d 1.
    (2) p d 1 1 a 2L d 1 p 1 p d 1.
    (3) p d 1 2 a 2 d 1 p 1 p d 1
    (4) p d 1 1 s 2 d 1 p 1 p d 1.

25. A new adjustable chair fits the shorter students and the taller ones in a class.
    (1) d 3 3 1 2L d 3 1 c d 3 1 p d 1.
    (2) d 3 3 1 2 d 3 1 p d 1 p d 1.
    (3) d 3 3 1 2 d 3 1 c d 3 1 p 3 1.
    (4) d 3 3 1 2 d 3 1 c d 3 1 p d 1.

### SENTENCES FROM FORMULAS

In this part you will be expected to recognize the sentence which fits a particular formula. On your answer sheet darken the block which has the number to match the number of the best sentence for each formula. (Phrases are underlined; dependent clauses are in parentheses.)

26. (s 1 2) p d 1 1 2L 1.
    (1) If you rode in that car, you missed me.
    (2) When they returned from their trip, they were ready.
    (3) While they were in that shop, they bought souvenirs.
    (4) When they returned from their trip, they were experts.
27. 2L 1 3?
    (1) Is Henry thoughtful?
    (2) Henry is thoughtful?
    (3) Can Henry work?
    (4) Who picked Henry?
28. 2 p d 1 c 2 p d 1.
    (1) Go into the kitchen and tell Mother.
    (2) Arrange in columns or separate into groups.
    (3) Go down the stairs and look in the closet.
    (4) Spend your money but earn your pay.
29. d 3 3 1 p 1 2 p d 1 p d 1.
    (1) A big round bundle of letters lay on the table for the guests.
    (2) A big round bundle of letters was there on the table for the guests.
    (3) A big round bundle waited for guests on the table.
    (4) A big bundle of letters lay on the table for the guests.
30. 1 2 (s 1 2) p d 1.
    (1) When he came into the room, I smiled.
    (2) I smiled when he came into the room.
    (3) I smiled when he looked up the address.
    (4) He came into the room when I smiled.

### FUNCTION WORDS

In this part you will need to identify kinds of function words. What kinds of function words are underlined in the following sentences? On your answer sheet darken the block with the number to match the best response for each sentence.

31. That woman gave some candy to the children for their trick-or-treat bags.
    (1) subordinators (2) coordinators (3) determiners (4) intensifiers
32. Either do the work now or do it later and feel rushed.
    (1) subordinators ((2) coordinators (3) determiners (4) intensifiers
33. In the past he has won many games for his team.
    (1) prepositions (2) determiners (3) auxiliaries (4) prepositions and determiners
34. He had known the answer before the teacher had asked the question.
    (1) auxiliaries (2) subordinators (3) auxiliaries and subordinators (4) auxiliaries and determiners

35. Before you came and while he was talking, Mary circulated among her friends and neighbors.
    (1) coordinators and subordinators (2) subordinators and auxiliaries
    (3) coordinators and auxiliaries (4) coordinators and prepositions

36. It was too long ago to be very specific about all of the quite numerous details.
    (1) intensifiers and prepositions (2) Prepositions (3) intensifiers
    (4) determiners and prepositions.

## KINDS OF SENTENCES

In this part you will need to recognize different kinds of sentences. Darken the blocks on your answer sheet by this code: 1-statement; 2-question; 3-request. For example, if you think a sentence is a statement, darken the block with the number 1 in it. (Punctuation has been omitted in the sentences below on purpose.)

37. Was that fun
38. He's gone
39. That girl is the one who sings
40. Listen
41. If you were speaking the four sentences above, how many of them could you change from one kind to another by changing your intonation?
    (1) All four (2) Only 37 (3) Only 37 and 40 (4) None

## EXPANSIONS

In this part you are expected to know which structures will fit in certain positions to expand a basic pattern. Here is the basic pattern you will consider:

The (1) water dripped (2) (3) (4)

To expand the sentence you will need to fill the blanks with all the structures numbered below. On your answer sheet darken the number of the blank into which you would place each structure.

42. cold
43. slowly
44. into the bucket
45. while we waited

PART II - JUDGMENT (10 points) In this part you are to decide whether a language scientist would agree or disagree with the following statements. If you think he would agree, darken the block on your answer sheet with the number 1 in it; if you think he would disagree, darken the block with the number 2 in it. Although the statements are arranged in pairs, it is not necessarily true that a language scientist would always disagree with one of the pair and agree with the other!

46. Use of English which is not standard is a certain indication that the speaker is stupid.
47. Use of English which is not standard is probably a sign that the speaker is uneducated.
48. Recognition of form classes is the most desirable result from a study of grammar.
49. Knowledge of the structure of our language is the most desirable result from a study of grammar.
50. Linguistic courtesy involves unprejudiced attitudes toward the language habits of others.
51. Linguistic courtesy involves the idea that "anything goes" in language usage.

FINAL EXAMINATION - LANGUAGE SENSE AND STRUCTURE (B)

52. Linguistics is scientific because it is based upon observation of language behavior.
53. Linguistics is scientific because it is descriptive rather than prescriptive.
54. One can best judge language usage by its correctness or incorrectness.
55. One can best judge language usage by its appropriateness.

PART III - COMPLETION (10 points) In this part you will need to supply the correct word to fill the blank. On you answer sheet darken the block with the number to match the number of the word which best fills the blank in each sentence below.

56. According to linguistics, sentences are most accurately considered structures which ____.
(1) contain a subject and predicate (2) do not need to be part of a larger structure (3) can be included in other structures (4) contain a form class 1 word and a form class 2 word
57. Dialects are regional differences in speech; ____ are individual differences in speech.
(1) intellects (2) geolects (3) isolects (4) idiolects
58. "Included sentences" are the same as ____.
(1) dependent clauses (2) homophones (3) superfixes (4)independent clauses
59. When we add something at the beginning or the end of a word, we are using ____.
(1) superfixes (2) affixes (3) coordinators (4) prefixes
60. Sometimes a word functions in more than one class without a change in its form; such words are called ____.
(1) phones (2) allophones (3) megaphones (4) homophones
61. Pitch of voice, pausing in speech, and use of emphasis on certain words are all treated in a part of language study called ____.
(1) punctuation (2) rhetoric (3) intonation (4) dialectics
62. The first word in a dependent clause is usually one of the group called ____.
(1) affixes (2) superfixes (3) subordinators (4) coordinators
63. When a subject and predicate agree in form, we say they have ____.
(1) intonation (2) concord (3) response (4) predication
64. Following the linguistics approach, we can tell the kinds of sentences by ____.
(1) affixes (2) punctuation (3) responses (4) idiolects
65. If we can not find at least one basic pattern in an expression, it is probably ____.
(1) an included sentence (2) a superfix (3) a fragment (4) an adjunct

PART IV - RECALL (15 points) In this part you will be expected to recall information by pairing items in two columns. On your answer sheet darken the block which has the number to match the number of the best answer in the right-hand column.

| | |
|---|---|
| 66. -ed | (1) usually signals from class 3 |
| 67. -s | (2) can signal form classes 3 and 4 |
| 68. -est | (3) can signal form classes 1 and 2 |
| 69. -ly | (4) usually signals from class 2 |
| | (5) can signal form classes 1 and 4 |

| | |
|---|---|
| 70. Chaucer | (1) symbolizes English history |
| 71. Westminster Abbey | (2) standardized Middle English |
| 72. William the Conqueror | (3) led Norman invasion |
| | (4) led Anglo-Saxons |
| | (5) invented English |

| | |
|---|---|
| 73. at the corner | (1) example of a head word |
| 74. because you work | (2) example of a separable verb |
| 75. the big stone church | (3) example of a dependent clause |
| 76. close down the factory | (4) example of a prepositional phrase |
| | (5) example of a sentence |

6

FINAL EXAMINATION- LANGUAGE SENSE AND STRUCTURE (B)

77. Old English
78. Pennsylvania "Dutch"
79. "you all"
80. Latin, French Spanish

(1) Southern dialect region
(2) Romance family
(3) Anglo-Saxon origin
(4) Midland dialect region
(5) Norman English

GRADE 10

FINAL EXAMINATION

LANGUAGE PATTERNS IN MOTION

Grade 10

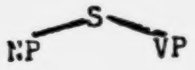
FINAL EXAMINATION LANGUAGE PATTERNS IN MOTION

There are seventy points in this examination. Each part has been assigned a point value.

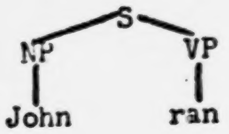
PART I - TREES (5 points) In this section you will work with sentence trees. On your answer sheet darken the space with the number to match the tree which is the most suitable illustration of each sentence below.

1. John ran.

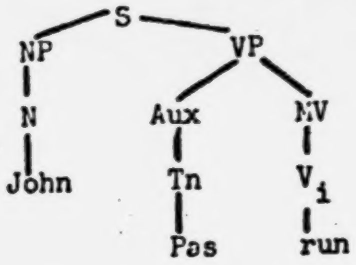
(1)



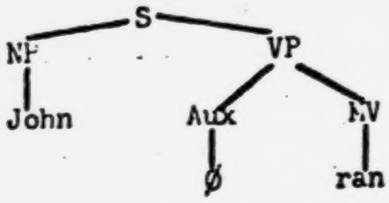
(2)


S
NP
VP
John
ran

(3)

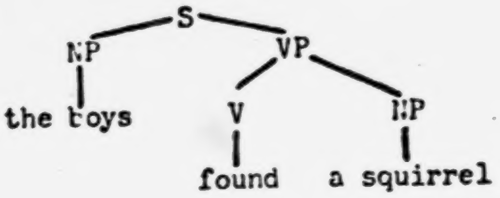

S
NP
VP
N
Aux
MV
John
Tn
$V_i$
Pas
run

(4)

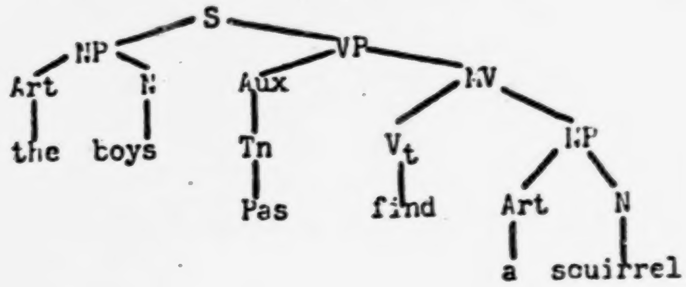

S
NP
VP
John
Aux
MV
Ø
ran

2. The boys found a squirrel.

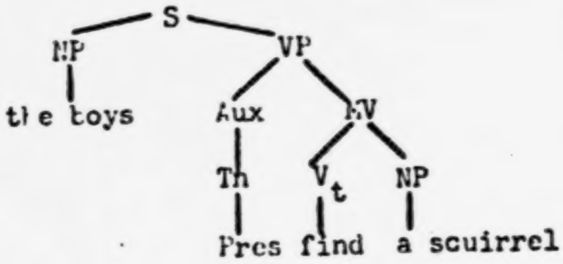
(1)


S
NP
VP
the boys
V
NP
found
a squirrel

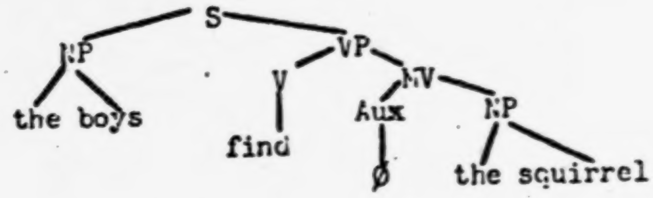
(2)


S
NP
VP
Art
N
Aux
MV
the
boys
Tn
$V_t$
NP
Pas
find
Art
N
a
scuirrel

(3)

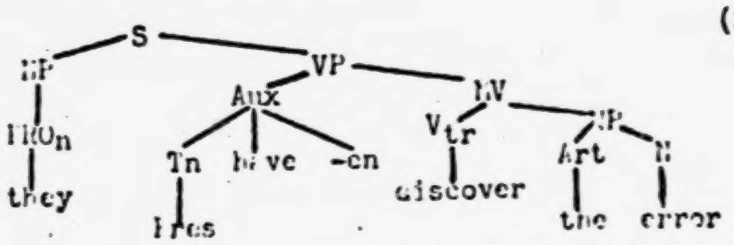

S
NP
VP
the boys
Aux
MV
Tn
$V_t$
NP
Pres
find
a scuirrel

(4)

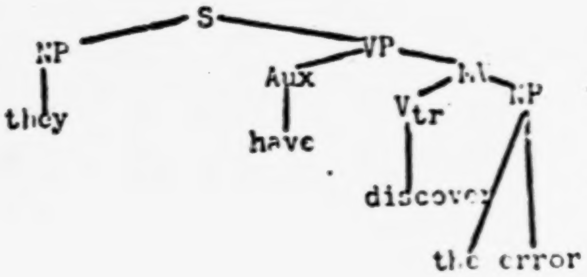

S
NP
VP
the boys
V
MV
find
Aux
NP
Ø
the squirrel

3. They have discovered the error.

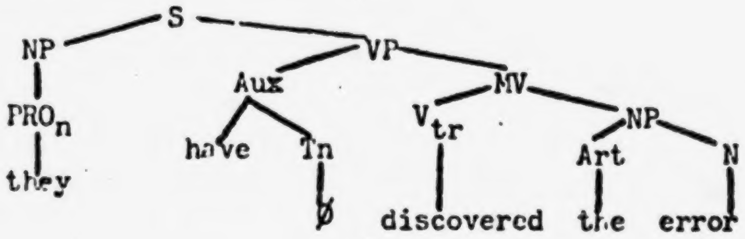
(1)


S
NP
VP
PROn
Aux
MV
they
Tn
have
-en
$V_{tr}$
NP
Pres
discover
Art
N
the
error

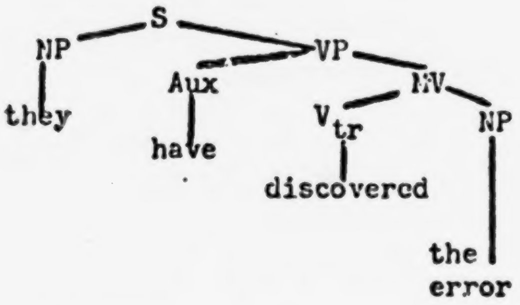
(2)


S
NP
VP
they
Aux
MV
have
$V_{tr}$
NP
discover
the error

(3)

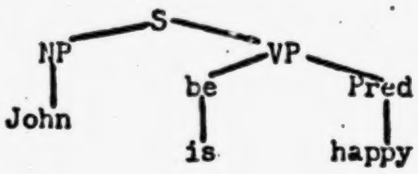

S
NP
VP
PROn
Aux
MV
they
have
Tn
Vtr
NP
Ø
discovered
Art
N
the
error

(4)

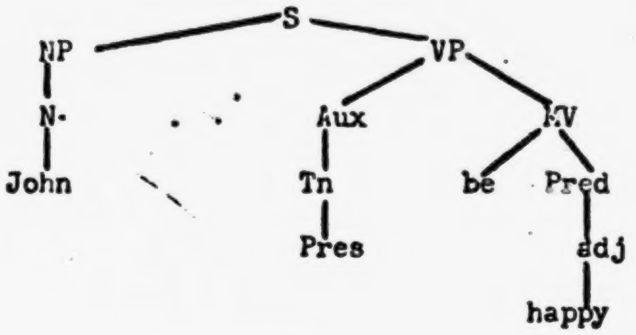

S
NP
VP
they
Aux
MV
have
Vtr
NP
discovered
the error

4. John is happy.

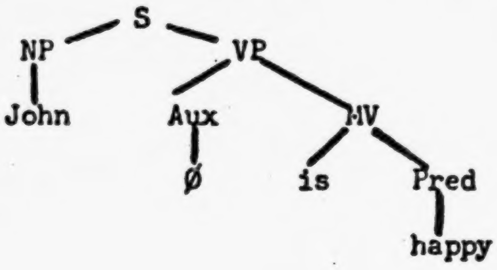
(1)


S
NP
VP
John
be
Pred
is
happy

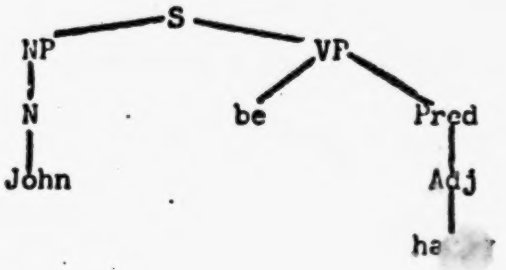
(2)


S
NP
VP
N
Aux
MV
John
Tn
be
Pred
Pres
adj
happy

(3)

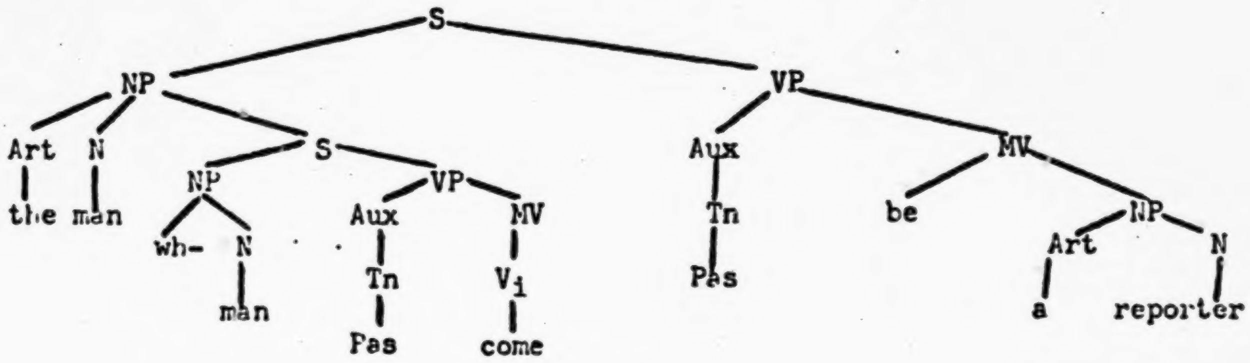

S
NP
VP
John
Aux
MV
Ø
is
Pred
happy

(4)

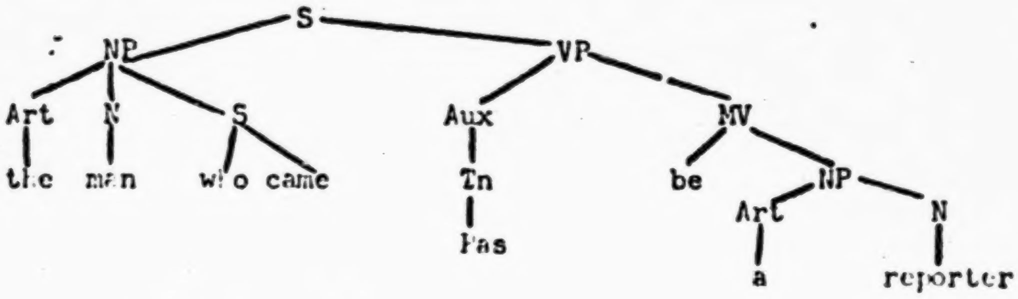

S
NP
VP
N
be
Pred
John
Adj

5. The man who came was a reporter.

(1)

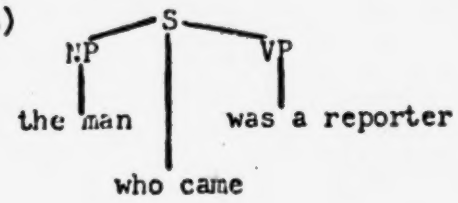

S
NP
VP
Art
N
S
Aux
MV
the
man
NP
VP
Tn
be
NP
wh-
N
Aux
MV
Pas
Art
N
man
Tn
Vi
a
reporter
Pas
come

(2)

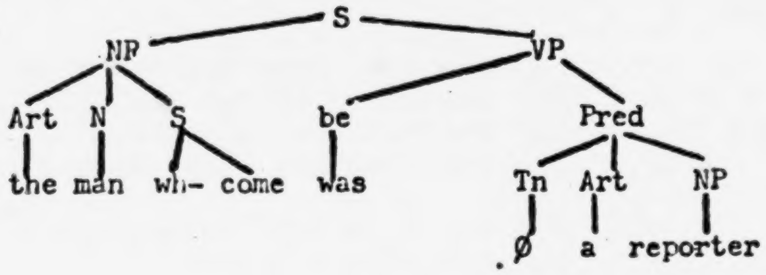

S
NP
VP
Art
N
S
Aux
MV
the
man
who came
Tn
be
NP
Pas
Art
N
a
reporter

FINAL EXAMINATION LANGUAGE PATTERNS IN MOTION

(3)



(4)



PART II - JUDGMENT (10 points) In this part you should decide whether a statement shows the point of view of g-t grammar or not. If you think it does, darken the space next to number 1 on your answer sheet; if you think it does not, darken the block after number 2.

6. A grammar is a set of rules for constructing sentences.
7. An adjective is more accurately termed a form class 3 word.
8. A grammar should show how sentences come into being.
9. A grammar should break up the parts of already completed sentences.
10. Tense is always part of the auxiliary to a verb.
11. There are only two tenses in English.
12. A sentence is a group of words expressing a complete thought.
13. A sentence is extremely difficult to define.
14. Parts of speech or form classes are the most important items in a grammar.
15. The processes by which sentences are made are the most important items in a grammar.

PART III- KERNELS (10 points) In this part you will need to identify the four types of kernel sentences. Use the chart. If you think a sentence below is the be type, darken the block number 1; if you think it is type I, darken block number 2, etc:

be = 1
I = 2
II = 3
III = 4.

| | | Position | | | |
|---|---|---|---|---|---|
| | Type | 1 | 2 | 3 | 4 |
| (1) | be | NP | be | Pred | (Adv) |
| (2) | I | NP | $V_i$ | Ø | (Adv) |
| (3) | II | NP | $V_t$ | NP | (Adv) |
| (4) | III | NP | $V_L$ | Comp | (Adv) |

16. Henry passed.
17. The elephants trampled the wheat.
18. Larry is sorry now.
19. Mrs. Smith looks ill.
20. Susan works efficiently.
21. The fans yelled.
22. The trees are beautiful then.
23. The book is on the table.
24. He became lazy.
25. The students finished the test quickly.

PART IV - TRANSFORMATIONS (10 points) In this section you will need to identify a sentence as the result of a transformation. On your answer sheet darken the block which matches the number of the sentence you think results from the item given in (). The transformations are simplified here.

26. $NP_1 + NP_2 \Rightarrow NP_2 + NP_1$ (Professor Jones answered the question.)

(1) Professor Jones questioned the answer.
(2) The answer was questioned by Professor Jones.
(3) The question was answered by Professor Jones.
(4) Professor Jones was answered by the question.

27. Af + v ==> v + Af (John + Pas + study + today)
(1) John studies today.
(2) John studied today.
(3) John has studies today.
(4) John has studied today.

28. Adjective embedding transformation (Alice bought a dress. The dress is blue.)
(1) Alice bought a blue dress.
(2) Alice's dress is blue.
(3) Alice is blue about her dress.
(4) The blue dress is Alice's.

29. wh- adjective embedding transformation (The man was a bully. The man came to dinner.)
(1) The man was a bully at dinner.
(2) The man who came was a bully at dinner.
(3) The man was a bully who came to dinner.
(4) The man who came to dinner was a bully.

30. wh- adverbial embedding transformation (I came SOMETIME. I was ready.)
(1) Sometimes I am ready.
(2) I came when I was ready.
(3) I was ready and so I came.
(4) Ready as I was, I came.

31. Af + v ==> v + Af (I + Pres + study + now)
(1) I will study now.
(2) I must study now.
(3) I study now.
(4) I am studying now.

32. (Q) transformation (John is there.)
(1) Is John there?
(2) There is John.
(3) John's there.
(4) Where is John?

33. (Q) transformation with wh-REASON and PRO-form (You did the work.)
(1) Did you do the work?
(2) Why did you do the work?
(3) Who did the work?
(4) Where did you do the work?

34. N + Adj ==> Adj + N (The house, dark and lonely, dominated the corner.)
(1) The house dominated the dark and lonely corner.
(2) The corner was dominated by the house, dark and lonely.
(3) The corner, dark and lonely, dominated the house.
(4) The dark and lonely house dominated the corner.

35. Embedding transformation for objective complement (We chose Jim. Jim was captain.)
(1) Jim, the captain, chose us.
(2) We chose Jim captain.
(3) We chose Captain Jim.
(4) Jim was chosen captain.

PART V - PHONOLOGY AND MORPHOLOGY (10 points) Here you will be expected to remember terms which are used in the scientific study of sound and meaning in language. On your answer sheet darken the numbered block which matches the number of the best completion of the statement.

36. A phoneme is _____.
    (1) a unit of sound
    (2) a family of related units of sound
    (3) an inventory of sounds
    (4) a unit of the alphabet

37. /dawn ðə striyt/ is a _____ transcription of down the street.
    (1) shorthand
    (2) phonological
    (3) phonemic
    (4) morphemic

38. The word disgracefully has _____ morphs.
    (1) 1
    (2) 2
    (3) 3
    (4 ) 4

39. The underlined portions of the words dogs, cats and causes are, in linguistic terms, variations or allomorphs of the English plural _____.
    (1) form
    (2) prefix
    (3) morpheme
    (4) spelling

40. _____ is the study of the sounds of the human voice which are used in language.
    (1) phonetics
    (2) phonemics
    (3) phonography
    (4) phonics

41. The words pat and tap indicate by their pronunciation differences within a a family of sounds; the t's and p's in these two words are called _____ of one another.
    (1) allomorphs
    (2) allophones
    (3) allophonemes
    (4) allomorphemes

42. The verb forms saw, believed and grew have one element in common, linguistically: _____.
    (1) the past morpheme
    (2) They are all regular verbs
    (3) They are all linking verbs
    (4) the future morph

43. [ ] and / / are symbols used in _____.
    (1) phonology (phonetics and phonemics)
    (2) morphology (morphs and morphemics)
    (3) morphemics only
    (4) phonemics only

44. $\{-S_2\}$ represents all the forms which make words show _____ in English.
    (1) ownership
    (2) plural

(3) tense
(4) degree

45. _____ is a morph added to the end of a word.

(1) An affix
(2) A suffix
(3) A prefix
(4) A superfix

PART VI - SYNTAX (15 points) In this section you will need to recall terms and associations which are involved in understanding the arrangement of sentence parts in the construction of sentences. You will match items from two columns. Darken the block on your answer sheet which matches your choice from the right hand column.

46. P-S rules
47. T-rules
48. S

(1) recursiveness
(2) kernels
(3) anaphora
(4) non-kernels

---

49. S $\longrightarrow$ NP + VP
50. VP $\longrightarrow$ Aux + MV
51. Aux $\longrightarrow$ Tn

(1) helper and verb
(2) past and present
(3) phrase and clause
(4) subject and predicate

---

52. $\Longrightarrow$
53. $\longrightarrow$
54. ( )

(1) adjectival
(2) phrase-structural
(3) optional
(4) transformational

---

55. Det + N
56. have + -en
57. verb + -ed

(1) Pas
(2) NP
(3) VP
(4) Aux

---

58. John cut himself.
59. Henry cleaned and polished his shoes.
60. The book that I wanted was out.

(1) compounding
(2) complementation
(3) anaphora
(4) subordination

---

PART VII - DEEP AND SURFACE STRUCTURE (10) points) In this part what you don't write is perhaps more important than what you do write. Your answer will be a surface structure for your reason in choosing it. Like non-kernel sentences in English, your written answers will not indicate everything you might think. Your teacher will give you the benefit of the doubt and assume that your correct answers are transformations of very, very deep structures of thought. On your answer sheet darken the number of the item which does not belong in the group. Be careful!

61. (1) surface structure
    (2) deep structure
    (3) phrase structure

62. (1) resultant sentence
    (2) kernel sentence
    (3) basic sentence

63. (1) Samuel
    (2) Noah
    (3) the Ark

64. (1) dictionary
    (2) encyclopedia
    (3) lexicon

65. (1) (You) Go to the store.
    (2) John is taller than Jim (is tall).
    (3) (Q) John is ready.

66. (1) complements
    (2) appositives
    (3) subordinates

67. (1) The girl who sings came.
    (2) John passed easily.
    (3) The book is on the table.

68. (1) find
    (2) gone
    (3) believe

69. (1) tree
    (2) branch
    (3) root

70. (1) NP
    (2) Loc
    (3) be

# APPENDIX D

74-75

## TABLE D-1

### Structural Grammar Test Questions
### Percentage of Correct Responses and Deviation from the Mean

Mean Percentage for Scholars' Classes: 82.1
Mean Percentage for Regular Classes: 63.2

| | Scholars' Classes | | Regular Classes | |
|---|---|---|---|---|
| Question | Percentage of Correct Responses | Deviation from Mean | Percentage of Correct Responses | Deviation from Mean |
| 1 | 95.0 | +12.9 | 70.8 | + 7.6 |
| 2 | 94.0 | +11.9 | 74.6 | +11.4 |
| 3 | 98.6 | +16.5 | 89.4 | +26.2 |
| 4 | 95.8 | +13.7 | 73.8 | +10.6 |
| 5 | 95.8 | +13.7 | 80.4 | +17.2 |
| 6 | 62.3 | -19.8 | 42.5 | -20.7 |
| 7 | 97.4 | +15.3 | 76.6 | +13.4 |
| 8 | 97.6 | +15.5 | 77.2 | +14.0 |
| 9 | 93.2 | +11.1 | 88.2 | +25.0 |
| 10 | 88.2 | + 6.1 | 73.7 | +10.5 |
| 11 | 93.2 | +11.1 | 63.4 | + 0.2 |
| 12 | 88.2 | + 6.1 | 73.6 | +10.4 |
| 13 | 95.0 | +12.9 | 76.8 | +13.6 |
| 14 | 27.3 | -54.8 | 18.4 | -44.8 |
| 15 | 95.0 | +12.9 | 85.9 | +22.7 |
| 16 | 61.3 | -20.8 | 36.2 | -27.0 |
| 17 | 84.4 | + 2.3 | 60.4 | - 2.8 |
| 18 | 77.0 | - 5.1 | 51.5 | -11.7 |
| 19 | 67.9 | -14.2 | 45.4 | -17.8 |
| 20 | 78.4 | - 3.7 | 50.7 | -12.5 |
| 21 | 77.0 | - 5.1 | 58.1 | - 5.1 |
| 22 | 79.4 | - 2.7 | 58.7 | - 4.5 |
| 23 | 86.2 | + 4.1 | 58.8 | - 4.4 |
| 24 | 73.1 | - 9.0 | 44.1 | -19.1 |
| 25 | 73.5 | - 8.6 | 50.0 | -13.2 |
| 26 | 73.7 | - 8.4 | 41.6 | -21.6 |
| 27 | 90.6 | + 8.5 | 72.2 | + 9.0 |
| 28 | 95.0 | +12.9 | 75.1 | +11.9 |
| 29 | 89.0 | + 6.9 | 63.5 | + 0.3 |
| 30 | 80.6 | - 1.5 | 61.4 | - 1.8 |
| 31 | 94.0 | +11.9 | 72.9 | + 9.7 |
| 32 | 79.6 | - 2.5 | 59.6 | - 3.6 |
| 33 | 86.0 | + 3.9 | 61.2 | - 2.0 |
| 34 | 93.0 | +10.9 | 72.8 | + 9.6 |
| 35 | 69.3 | -12.8 | 43.8 | -19.4 |
| 36 | 91.8 | + 9.7 | 65.1 | + 1.9 |
| 37 | 91.8 | + 9.7 | 81.6 | +18.4 |
| 38 | 97.2 | +15.1 | 86.9 | +23.7 |
| 39 | 97.8 | +15.7 | 89.4 | +26.2 |
| 40 | 94.6 | +12.5 | 83.4 | +20.2 |

## TABLE D-1 (contd.)

### Structural Grammar Test Questions
### Percentage of Correct Responses and Deviation from the Mean

Mean Percentage for Scholars' Classes: 82.1
Mean Percentage for Regular Classes: 63.2

| | Scholars' Classes | | Regular Classes | |
|---|---|---|---|---|
| Question | Percentage of Correct Responses | Deviation from Mean | Percentage of Correct Responses | Deviation from Mean |
| 41 | 70.9 | -11.2 | 44.5 | -18.7 |
| 42 | 98.4 | +16.3 | 89.5 | +26.3 |
| 43 | 94.6 | +12.5 | 84.5 | +21.3 |
| 44 | 97.6 | +15.5 | 90.8 | +27.6 |
| 45 | 91.4 | + 9.3 | 74.8 | +11.6 |
| 46 | 96.4 | +14.3 | 84.5 | +21.3 |
| 47 | 54.5 | -27.6 | 48.0 | -15.2 |
| 48 | 72.9 | - 9.2 | 34.6 | -28.6 |
| 49 | 84.4 | + 2.3 | 69.5 | + 6.3 |
| 50 | 93.4 | +11.3 | 67.6 | + 4.4 |
| 51 | 86.4 | + 4.3 | 72.1 | + 8.9 |
| 52 | 91.2 | + 9.1 | 78.8 | +15.6 |
| 53 | 39.3 | -42.8 | 37.8 | -25.4 |
| 54 | 76.2 | - 5.9 | 49.4 | -13.8 |
| 55 | 84.0 | + 1.9 | 59.6 | - 3.6 |
| 56 | 68.1 | -14.0 | 37.9 | -25.3 |
| 57 | 68.7 | -13.4 | 49.1 | -14.1 |
| 58 | 60.3 | -21.8 | 48.3 | -14.9 |
| 59 | 80.0 | - 2.1 | 56.7 | - 6.5 |
| 60 | 79.6 | - 2.5 | 64.1 | + 0.9 |
| 61 | 92.2 | +10.1 | 64.2 | + 1.0 |
| 62 | 74.5 | - 7.6 | 62.0 | - 1.2 |
| 63 | 89.2 | + 7.1 | 64.3 | + 1.1 |
| 64 | 78.6 | - 3.5 | 46.9 | -16.3 |
| 65 | 92.2 | +10.1 | 76.0 | +12.8 |
| 66 | 84.8 | + 2.7 | 61.5 | - 1.7 |
| 67 | 79.0 | - 3.1 | 57.6 | - 5.6 |
| 68 | 73.5 | - 8.6 | 54.9 | - 8.3 |
| 69 | 74.3 | - 7.8 | 67.7 | + 4.5 |
| 70 | 64.7 | -17.4 | 43.3 | -19.9 |
| 71 | 80.2 | - 1.9 | 48.5 | -14.7 |
| 72 | 64.1 | -18.0 | 48.9 | -14.3 |
| 73 | 87.6 | + 5.5 | 63.7 | + 0.5 |
| 74 | 77.6 | - 4.5 | 49.5 | -13.7 |
| 75 | 83.4 | + 1.3 | 55.5 | - 7.7 |
| 76 | 64.5 | -17.6 | 51.7 | -11.5 |
| 77 | 65.7 | -16.4 | 63.5 | + 0.3 |
| 78 | 78.0 | - 4.1 | 70.7 | + 7.5 |
| 79 | 95.6 | +13.5 | 89.9 | +26.7 |
| 80 | 84.6 | + 2.5 | 64.3 | + 1.1 |

## TABLE D-2

### Transformational Grammar Test Questions
### Percentage of Correct Responses and Deviation from the Mean

Mean Percentage for Scholars' Classes: 73.8
Mean Percentage for Regular Classes: 52.7

| | Scholars' Classes | | Regular Classes | |
|---|---|---|---|---|
| Question | Percentage of Correct Responses | Deviation from Mean | Percentage of Correct Responses | Deviation from Mean |
| 1 | 72.1 | - 1.7 | 43.0 | - 9.7 |
| 2 | 81.9 | + 8.1 | 57.0 | - 1.7 |
| 3 | 55.7 | -18.1 | 37.6 | -15.1 |
| 4 | 58.1 | -15.7 | 34.7 | -18.0 |
| 5 | 64.0 | - 9.8 | 37.1 | -15.6 |
| 6 | 84.4 | +10.6 | 75.2 | +22.5 |
| 7 | 61.6 | -12.2 | 42.5 | -10.2 |
| 8 | 82.5 | + 8.7 | 57.3 | + 4.6 |
| 9 | 61.8 | -12.0 | 49.6 | - 3.1 |
| 10 | 80.1 | + 6.3 | 67.5 | +14.8 |
| 11 | 76.1 | + 2.3 | 51.6 | - 1.1 |
| 12 | 69.4 | - 4.4 | 44.1 | - 8.6 |
| 13 | 67.5 | - 6.3 | 44.8 | - 7.9 |
| 14 | 84.2 | +10.4 | 46.4 | - 6.3 |
| 15 | 89.9 | +16.1 | 68.5 | +15.8 |
| 16 | 91.6 | +17.8 | 69.9 | +17.2 |
| 17 | 93.6 | +19.8 | 74.4 | +21.7 |
| 18 | 84.5 | +10.7 | 66.0 | +13.3 |
| 19 | 73.8 | 0 | 49.1 | - 3.6 |
| 20 | 75.4 | + 1.6 | 49.1 | - 3.6 |
| 21 | 87.8 | +14.0 | 66.1 | +13.4 |
| 22 | 72.4 | - 1.4 | 52.7 | 0 |
| 23 | 80.3 | + 6.5 | 60.9 | + 8.2 |
| 24 | 64.7 | - 9.1 | 36.7 | -16.0 |
| 25 | 88.6 | +14.8 | 63.1 | +10.4 |
| 26 | 93.9 | +20.1 | 74.4 | +21.7 |
| 27 | 66.3 | - 7.5 | 44.7 | - 8.0 |
| 28 | 99.0 | +25.2 | 87.1 | +34.4 |
| 29 | 93.9 | +20.1 | 78.3 | +25.6 |
| 30 | 94.6 | +20.8 | 76.1 | +23.4 |
| 31 | 48.8 | -25.0 | 20.1 | -32.6 |
| 32 | 69.0 | - 4.8 | 41.6 | -11.1 |
| 33 | 66.4 | - 7.4 | 42.2 | -10.5 |
| 34 | 89.5 | +15.7 | 63.7 | +11.0 |
| 35 | 74.7 | + 0.9 | 56.7 | + 4.0 |

## TABLE D-2 (contd.)

### Transformational Grammar Test Questions
### Percentage of Correct Responses and Deviation from the Mean

Mean Percentage for **Scholars' Classes: 73.8**
Mean Percentage for **Regular Classes: 52.7**

| | Scholars' Classes | | Regular Classes | |
|---|---|---|---|---|
| Question | Percentage of Correct Responses | Deviation from Mean | Percentage of Correct Responses | Deviation from Mean |
| 36 | 57.0 | -16.8 | 37.4 | -15.3 |
| 37 | 66.3 | - 7.5 | 51.6 | - 1.1 |
| 38 | 76.5 | + 2.7 | 65.5 | +12.8 |
| 39 | 73.7 | - 0.1 | 43.5 | - 9.2 |
| 40 | 61.3 | -12.5 | 44.5 | - 8.2 |
| 41 | 75.2 | + 1.4 | 35.9 | -16.8 |
| 42 | 93.9 | +20.1 | 70.6 | +17.9 |
| 43 | 72.6 | - 1.2 | 48.6 | - 4.1 |
| 44 | 75.4 | + 1.6 | 60.6 | + 7.9 |
| 45 | 84.1 | +10.3 | 68.1 | +15.4 |
| 46 | 76.4 | + 2.6 | 53.3 | + 0.6 |
| 47 | 75.6 | + 1.8 | 49.4 | - 3.3 |
| 48 | 38.6 | -35.2 | 21.0 | -31.7 |
| 49 | 97.3 | +23.5 | 80.3 | +27.6 |
| 50 | 91.2 | +17.4 | 69.6 | +16.9 |
| 51 | 89.2 | +15.4 | 71.3 | +18.6 |
| 52 | 78.2 | + 4.4 | 54.8 | + 2.1 |
| 53 | 79.4 | + 5.6 | 57.6 | + 4.9 |
| 54 | 93.2 | +19.4 | 66.9 | +14.2 |
| 55 | 93.8 | +20.0 | 73.5 | +20.8 |
| 56 | 69.8 | - 4.0 | 42.1 | -10.6 |
| 57 | 79.7 | + 5.9 | 51.4 | - 1.3 |
| 58 | 69.6 | - 4.2 | 40.0 | -12.7 |
| 59 | 84.6 | +10.8 | 66.4 | +13.7 |
| 60 | 70.2 | - 3.6 | 54.3 | + 1.6 |
| 61 | 70.4 | - 3.4 | 68.3 | +15.6 |
| 62 | 63.2 | -10.6 | 46.1 | - 6.6 |
| 63 | 27.9 | -45.9 | 25.4 | -27.3 |
| 64 | 71.5 | - 2.3 | 47.2 | - 5.5 |
| 65 | 75.9 | + 2.1 | 45.6 | - 7.1 |
| 66 | 40.5 | -33.3 | 22.2 | -30.5 |
| 67 | 47.6 | -26.2 | 26.8 | -25.9 |
| 68 | 79.9 | + 6.1 | 46.2 | - 6.5 |
| 69 | 32.4 | -41.4 | 38.0 | -14.7 |
| 70 | 38.5 | -35.3 | 31.6 | -21.1 |

# 10 VISION CORRECTION PROGRAM

## 10. VISION CORRECTION PROGRAM

### Introduction

#### History of the Program

The Vision Correction Program was initiated in March 1966 to provide medically indigent students enrolled in both public and parochial schools with diagnostic ophthalmological services and free eye glasses when needed. Despite the short duration of the 1965-1966 program, the families of the children served expressed a considerable degree of satisfaction with the service provided.

The evaluation report of the 1965-1966 program recommended the implementation of a new appointment system to minimize the number of cancelled or unkept appointments which amounted to 25 percent of the referred cases. It was also recommended that the program staff investigate the problem of over-referrals and establish some standard of need to guide the decisions of personnel responsible for making referrals to the program. Apparently none of these recommendations were implemented in the current program.

The 1966 evaluation report also recommended a study of the relationship between visual acuity and scholastic achievement. This recommendation was implemented by the Office of Research in the form of a preliminary study for the long-term evaluation of the program.

## Description of the Program

The definition of the program was obtained by interviewing the program staff. A copy of this definition is included in the following pages to provide a description of the program.

# Vision Correction Program Definition

## GENERAL

I. Overall Statement of Objectives and Rationale for the Program

The purpose of the Vision Correction Program is to provide medically deprived students who have visual problems with the necessary correction, thereby giving them a better chance for scholastic achievement.

II. Scope

A. Number of Pupils and Schools Involved

Between September 1, 1966, and June 1, 1967, 1,946 students were referred to the program.

B. The Grades or Ages of Participants

The services of the program are available to students in all grades.

C. General Description of Staff

The staff in the schools consists of the school physicians and nurses. The staff at the Board of Education Eye Clinic includes an opthalmologist, an optician, a registered nurse, and a clerk.

## OUTCOMES

I. Major Objectives--changes expected to occur in program participants as a result of the program. There are two types of major objectives.

   A. Terminal Objectives--behaviors exhibited by participants at the end of the program which demonstrate successful completion of the program

   At the end of the Vision Correction Program, the participant's vision will be corrected, as far as possible.

   B. Ultimate Objectives--the long range goals of the program. These are objectives to which the program hopefully contributes, but for which it does not have sole responsibility.

   It is hoped that the Vision Correction Program will contribute to participants' acquiring the following things:

      1. Preserved vision

      2. A higher level of scholastic achievement

II. Enabling Objectives--the things that must be done during the program to ensure the accomplishment of the major objectives

Vision problems in students must be detected and diagnosed before correction is effected.

III. Other Benefits--benefits expected to accrue to other than program participants as a result of the program

   A. Teachers benefit from the realization that their students' learning problems could be the result of bad eyesight, rather than a lack of intelligence.

   B. Parents benefit from the knowledge that their child's slow progress in school may be caused by an inability to see correctly.

   C. The community benefits when students with psychological problems are referred to appropriate community agencies.

IV. Criteria for Successful Completion of or Removal from the Program

No criteria were specified for the Vision Correction Program.

## ANTECEDENTS

I. Participants

A. Selection Characteristics--the criteria that are used to determine who shall participate in the program

Any student in the Pittsburgh Public Schools or the Pittsburgh Parochial Schools who has not received medical attention for a vision defect due to economic problems is eligible for the program. The school nurse refers the student to the registered nurse at the Eye Clinic.

Before a student is selected to receive the services of the program, the following must be determined:

1. That his socio-economic level is such that he is unlikely to receive needed medical attention outside of the school

2. That he has an ophthalmologically diagnosed vision defect

B. Entering Behaviors--characteristics of participants (other than selection characteristics) which are related to performance in the program

The participants in the Vision Correction Program may have psychological, emotional, or learning problems resulting from their vision defects.

II. Staff--qualifications with respect to specific positions

The Vision Correction Program utilizes existing personnel from the medical services in the schools and the Board of Education Eye Clinic.

Staff in the Schools

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Nurse | R. N. | |
| Physician | M. D. | |

Staff of the Eye Clinic--Board of Education

| Staff Member | Professional Qualifications | Personal Qualifications |
|---|---|---|
| Ophthalmologist | An M. D. who specializes in the care of the eyes | |
| Registered Nurse | R. N. | |
| Optician | | |
| Part-time Clerk | | |

III. Support

A. Administrative Support--administrative personnel who cooperate in carrying out the program

The principal's evaluation of the child's academic problems resulting from bad eyesight is important to the Vision Correction Program.

School social workers refer students to the Eye Clinic. The Eye Clinic staff refer some of their cases to the school social worker.

B. Human Resources--non-administrative and non-staff personnel whose contributions and cooperation are necessary to the operation of the program

The cooperation and support of the participants' parents in seeing that their children keep appointments and adhere to the prescribed treatment contributes to the effectiveness of the Vision Correction Program.

C. Media--the materials, supplies, and equipment required for program activities

1. Screening material
2. Medical equipment
3. Office equipment and supplies

D. Facilities

The Vision Correction Program utilizes the already existing facilities of the medical services in the schools and the Eye Clinic at the Board of Education.

IV. Time Constraints

No time constraints were specified for the Vision Correction Program.

## PROCESS

I. Participant Activities--the day-to-day program activities that will ultimately lead to the achievement of objectives

In order to benefit from the Vision Correction Program, the student must use the prescribed eye glasses as recommended by the ophthalmologist. He must also submit to periodic checking of his vision and his glasses.

II. Staff Functions and Activities

A. Staff Functions and Duties with Respect to Specific Positions

Staff in the Schools

| Staff Members | Functions | Duties |
|---|---|---|
| Nurse | Determines eligibility of the child for the program | Provides information on social and financial status of child's family |
| Physician | Carries out annual eye screening process | Examines students |

Staff of the Eye Clinic--Board of Education

| Staff Members | Functions | Duties |
|---|---|---|
| Ophthalmologist | Diagnoses referral cases and prescribes treatment | Examines students |
| Registered Nurse | 1. Reviews eligibility of referred cases in terms of economic need | Discusses referral cases with referring nurses |
| | 2. Is responsible for administrative aspects of the program | a. Keeps appointment schedule for cases<br>b. Reports to schools on cases examined<br>c. Refers specific cases to community agencies<br>d. makes special recommendations |
| Optician | | a. Makes eye glasses<br>b. Makes necessary repairs on eye glasses |
| Part-time clerk | Performs clerical services | a. Does typing<br>b. Answers phone |

## B. Intra-staff Communication and Coordination

There are periodic contacts between school nurses and the registered nurse at the Eye Clinic in the Administration Building.

## C. Communication Between Program Staff and Others

The registered nurse at the Eye Clinic in the Administration Building communicates with schools and necessary community agencies. Public health nurses attend in-service training classes when they join the program.

## Statement of the Problem

The problem for evaluation was twofold: (1) to determine the degree of utilization of the program's services, and (2) to examine the relationship between vision correction and scholastic achievement.

## Method

The extent to which the services of the program were utilized was determined by comparing the 1965-1966 and the 1966-1967 annual reports of the eye clinic at the Pittsburgh Board of Public Education. The degree of utilization was defined as the percentage of the total number of cases referred who were actually examined.

To study the relationship between vision correction and scholastic achievement, a group of myopic pupils were compared with a group of students who had 20/20 vision and did not wear glasses. Myopic students were identified by checking the list of students given corrective lenses in 1964 by the eye clinic at the Board of Public Education. Myopia was determined by examining the copies of the prescriptions given. Further information about the pupils in the preliminary sample was gathered through a data collection sheet sent to the public and parochial school classroom teachers of these students. A number of students were also identified who had 20/20 vision and did not wear glasses. The selected pupils covered grades 4, 5, 6, 7, and 8. All members of the sample had Binet I.Q. test scores between 90 and 115 inclusive. Table 1 shows the distribution of the three groups in the final sample by grade.

TABLE 1

Distribution of Three Groups by Grade

| Grade | Corrected Myopia Public Schools | Corrected Myopia Parochial Schools | 20/20 Vision without Eye Glasses Public Schools |
|---|---|---|---|
| 4 | 13 | 7 | 15 |
| 5 | 15 | 13 | 8 |
| 6 | 25 | 8 | 20 |
| 7 | 18 | 13 | 20 |
| 8 | 15 | 9 | 20 |

N = 219

## Results

### Utilization of the Program

Table 2 gives a comparison of the 1965-1966 and 1966-1967 Vision Correction Programs. The duration of the 1965-1966 program was four months, while the 1966-1967 program operated for a full school year.

## TABLE 2

Comparison of Program Utilization for the
1965-1966 and the 1966-1967 School Years

| | 1965-1966 | | 1966-1967 | |
|---|---|---|---|---|
| | N | % | N | % |
| Cases referred: | 252 | 100.0 | 2101 | 100.0 |
| Public schools | 5 | 2.0 | 1494 | 71.1 |
| Parochial schools | 247 | 98.0 | 607 | 28.9 |
| Cases given glasses | 156 | 61.9 | 1762 | 83.9 |
| Cases not given glasses | 96 | 38.1 | 339 | 16.1 |

The canceled and unkept appointments were not recorded in the annual report of the eye clinic for the current school year. Therefore, the degree to which the program was utilized cannot be determined according to the previously defined method.

### Visual Acuity and Scholastic Achievement

Tables A-1 through A-5 in the Appendix show the frequency and standard deviation of reading achievement scores and absenteeism rates for treatment and control group in grades 4 to 8 inclusive. It should be noted that no attempt has been made to isolate effects of myopia contributing to underachievement from effects of low socio-economic status contributing to the failure to procure proper eyeglasses for the child or from primary effects of myopia contributing to under-achievement. The confounding of these effects is manifest in the inability of the treatment to do more than eliminate cumulative effects of myopia.

Table 3 presents a comparison of gain scores for both students with corrected myopia and those with 20/20 vision without glasses.

### TABLE 3

Comparison of Gain Scores for Corrected Myopia and 20/20 Visual Acuity Cases without Glasses

| Grade | 1964-1965 Gain Scores | | 1965-1966 Gain Scores | |
|---|---|---|---|---|
| | Myopic | Normal | Myopic | Normal |
| 4 | 1.08 | 1.03 | 1.04 | 0.79 |
| 5 | 0.49 | 1.13 | 0.77 | 0.50 |
| 6 | 0.88 | 0.94 | 0.70 | 0.97 |
| 7 | 0.70 | 0.71 | 1.74 | 0.95 |
| 8 | 1.32 | 1.01 | 0.44 | 0.91 |

N.S. $p < .06$ N.S. $p < .06$

Table 3 indicates that the provision of eyeglasses to myopic students halts the cumulative achievement deficits. It does not, in itself, overcome these deficits. Further corroboration of this is found in the data of Appendix A, where an average deficit of approximately one year is observed for myopic students.

Table 4 is a comparison of the gain scores for 1965-1966 and 1966-1967 for students with corrected myopia.

## TABLE 4

### Comparison of Gain Scores for Corrected Myopia Cases

| Grade | Gain Scores for Corrected Myopia Cases | |
|---|---|---|
| | 1964-1965 | 1965-1966 |
| 4 | 1.08 | 1.04 |
| 5 | 0.49 | 0.77 |
| 6 | 0.88 | 0.70 |
| 7 | 0.70 | 1.74 |
| 8 | 1.32 | 0.44 |

N.S. $p > .06$

Table 4 also indicates that the provision of eyeglasses halts the cumulative effects of myopia, but does not increase the achievement rates.

As shown in the preceding tables, the distribution of gain scores for corrected myopic cases is not significantly different at the .06 level from the distribution of gain scores for normal visual acuity without eyeglasses. In addition, the distribution of gain scores for corrected myopia in the two successive years after correction is not significantly different at the .06 level. The randomization test was used in all cases.

# APPENDIX A

## TABLE A-1

### Frequency and Standard Deviation for Treatment and Control Groups in Grade 4

| Variables | Corrected Myopia | | Normal Vision Acuity | |
|---|---|---|---|---|
| | Number | S. D. | Number | S. D. |
| Number of Cases | 13 | | 15 | |
| Mean Age | 10.00 | 0.70 | 10.47 | 0.64 |
| Mean I. Q. | 103.85 | 5.63 | 103.40 | 6.40 |
| Mean Reading Achievement | | | | |
| 1964 | 2.20 | 0.62 | 4.11 | 1.90 |
| 1965 | 3.28 | 0.92 | 5.14 | 1.83 |
| 1966 | 4.32 | 1.17 | 5.93 | 1.85 |
| Mean Days Absent | | | | |
| 1964 | 14.31 | 10.18 | 4.33 | 3.29 |
| 1965 | 12.92 | 11.01 | 3.40 | 2.58 |
| 1966 | 13.07 | 9.22 | 3.67 | 3.56 |

## TABLE A-2

### Frequency and Standard Deviation for Treatment and Control Groups in Grade 5

| Variables | Corrected Myopia | | Normal Vision Acuity | |
|---|---|---|---|---|
| | Number | S. D. | Number | S. D. |
| Number of Cases | 15 | | 8 | |
| Mean Age | 10.73 | .88 | 11.13 | .35 |
| Mean I. Q. | 102.13 | 6.95 | 106.88 | 7.24 |
| Mean Reading Achievement | | | | |
| 1964 | 3.38 | .65 | 4.65 | 1.52 |
| 1965 | 3.87 | .67 | 5.78 | 1.66 |
| 1966 | 4.64 | .70 | 6.38 | 1.52 |
| Mean Days Absent | | | | |
| 1964 | 7.85 | 6.46 | 3.00 | 3.07 |
| 1965 | 7.07 | 5.25 | 5.00 | 2.82 |
| 1966 | 8.00 | 6.29 | 3.00 | 2.68 |

## TABLE A-3

### Frequency and Standard Deviation for Treatment and Control Groups in Grade 6

| Variables | Corrected Myopia | | Normal Vision Acuity | |
|---|---|---|---|---|
| | Number | S. D. | Number | S. D. |
| Number of Cases | 25 | | 20 | |
| Mean Age | 11.76 | .97 | 12.15 | 0.59 |
| Mean I. Q. | 103.32 | 6.72 | 106.60 | 5.41 |
| Mean Reading Achievement | | | | |
| 1964 | 4.10 | 0.86 | 5.08 | 1.59 |
| 1965 | 4.98 | 1.15 | 6.02 | 1.47 |
| 1966 | 5.67 | 1.11 | 6.99 | 1.55 |
| Mean Days Absent | | | | |
| 1964 | 14.31 | 10.18 | 4.33 | 3.29 |
| 1965 | 12.92 | 11.01 | 3.40 | 2.58 |
| 1966 | 13.07 | 9.22 | 3.67 | 3.56 |

### TABLE A-4

### Frequency and Standard Deviation for Treatment and Control Groups in Grade 7

| Variables | Corrected Myopia | | Normal Vision Acuity | |
|---|---|---|---|---|
| | Number | S.D. | Number | S.D. |
| Number of Cases | 18 | | 20 | |
| Mean Age | 12.83 | 0.99 | 13.65 | 0.99 |
| Mean I.Q. | 102.50 | 8.11 | 102.60 | 5.62 |
| Mean Reading Achievement | | | | |
| 1964 | 4.35 | 1.30 | 5.68 | 1.11 |
| 1965 | 5.05 | 1.44 | 6.39 | 1.10 |
| 1966 | 6.79 | 2.38 | 7.34 | 1.27 |
| Mean Days Absent | | | | |
| 1964 | 8.65 | 8.99 | 3.70 | 2.45 |
| 1965 | 7.67 | 9.09 | 3.20 | 2.26 |
| 1966 | 11.67 | 11.99 | 4.55 | 2.65 |

## TABLE A-5

### Frequency and Standard Deviation for Treatment and Control Groups in Grade 8

| Variables | Corrected Myopia | | Normal Vision Acuity | |
|---|---|---|---|---|
| | Number | S. D. | Number | S. D. |
| Number of Cases | 15 | | 20 | |
| Mean Age | 13.64 | 1.00 | 14.00 | 0.65 |
| Mean I. Q. | 102.33 | 7.69 | 100.15 | 5.28 |
| Mean Reading Achievement | | | | |
| 1964 | 5.57 | 1.29 | 6.19 | 0.63 |
| 1965 | 6.89 | 1.61 | 7.20 | 0.70 |
| 1966 | 6.45 | 2.28 | 8.11 | 0.78 |
| Mean Days Absent | | | | |
| 1964 | 4.46 | 3.71 | 1.65 | 1.42 |
| 1965 | 9.35 | 12.77 | 5.42 | 3.39 |
| 1966 | 8.53 | 13.88 | 4.21 | 3.89 |